

Ballfields Parcels at DoDHF Novato, CA
Data Validation Reports
LDC# 13575

Volatiles

1000

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Ballfields Parcels at DoDHF Novato, CA
Collection Date: April 6, 2005
LDC Report Date: June 15, 2005
Matrix: Soil
Parameters: Volatiles
Validation Level: NFESC Level III
Laboratory: Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K2502497

Sample Identification

TO63-R2-SB04-0-0.5	TO63-R1-SB01-0-0.5MS
TO63-R2-SB04-3-4	TO63-R1-SB01-0-0.5MSD
TO63-R2-SB01-0-0.5	
TO63-R2-SB01-0-0.5 Dup	
TO63-R2-SB01-1-2	
TO63-R1-SB04-0-0.5	
TO63-R1-SB04-4-5	
TO63-R1-SB01-0-0.5	
TO63-R1-SB03-0-0.5	
TO63-R1-SB03-4-5	
TO63-R4-SB04-0-0.5	
TO63-R4-SB04-4-5	
TO63-R5-SB04-0-0.5	
TO63-R5-SB04-5-6	
TO63-R5-SB02-0-0.5	
TO63-R5-SB02-3-4	
TO63-R5-SB01-0-0.5	
TO63-R5-SB03-0-0.5	
TO63-R2-SB03-0-0.5	
TO63-R2-SB02-0-0.5	

Introduction

This data review covers 22 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

The review follows the Final Sampling and Analysis Plan for Preliminary Assessment/Site Investigation of Ballfields Parcels at DoDHF Novato, California, (March 23, 2005) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs) with the following exceptions:

Date	Compound	%RSD	Associated Samples	Flag	A or P
4/11/05	Bromomethane Cyclohexane Methylcyclohexane	15.7 15.8 15.5	All samples in SDG K2502497	J (all detects) UJ (all non-detects)	A

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were greater than or equal to 0.05 as required.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs) with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
4/13/05	Dichlorodifluoromethane	22	TO63-R1-SB01-0-0.5MS TO63-R1-SB01-0-0.5MSD	J (all detects) UJ (all non-detects)	A

The percent difference (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Analysis Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
KWG0505901-3	4/11/05	Acetone Bromomethane	10 ug/Kg 0.80 ug/Kg	TO63-R2-SB04-0-0.5 TO63-R2-SB04-3-4 TO63-R2-SB01-0-0.5 TO63-R2-SB01-0-0.5 Dup TO63-R2-SB01-1-2 TO63-R1-SB04-0-0.5 TO63-R1-SB04-4-5 TO63-R1-SB01-0-0.5
KWG0506003-3	4/12/05	Bromomethane	1.1 ug/Kg	TO63-R1-SB03-0-0.5 TO63-R1-SB03-4-5 TO63-R4-SB04-0-0.5 TO63-R4-SB04-4-5 TO63-R5-SB04-0-0.5 TO63-R5-SB04-5-6 TO63-R5-SB02-0-0.5 TO63-R5-SB02-3-4 TO63-R5-SB01-0-0.5 TO63-R5-SB03-0-0.5 TO63-R2-SB03-0-0.5 TO63-R2-SB02-0-0.5

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound TIC (RT in minutes)	Reported Concentration	Modified Final Concentration
TO63-R2-SB04-3-4	Acetone	63 ug/Kg	63U ug/Kg

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples TO63-R2-SB01-0-0.5 and TO63-R2-SB01-0-0.5 Dup and samples TO63-R1-SB01-0-0.5 and TO63-R1-SB01-0-0.5Dup (from SDG K2502497) were identified as field duplicates. No volatiles were detected in any of these samples.

XVII. Field Blanks

No field blanks were identified in this SDG.

Ballfields Parcels at DoDHF Novato, CA
Volatiles - Data Qualification Summary - SDG K2502497

SDG	Sample	Compound	Flag	A or P	Reason
K2502497	TO63-R2-SB04-0-0.5 TO63-R2-SB04-3-4 TO63-R2-SB01-0-0.5 TO63-R2-SB01-0-0.5 Dup TO63-R2-SB01-1-2 TO63-R1-SB04-0-0.5 TO63-R1-SB04-4-5 TO63-R1-SB01-0-0.5 TO63-R1-SB03-0-0.5 TO63-R1-SB03-4-5 TO63-R4-SB04-0-0.5 TO63-R4-SB04-4-5 TO63-R5-SB04-0-0.5 TO63-R5-SB04-5-6 TO63-R5-SB02-0-0.5 TO63-R5-SB02-3-4 TO63-R5-SB01-0-0.5 TO63-R5-SB03-0-0.5 TO63-R2-SB03-0-0.5 TO63-R2-SB02-0-0.5	Bromomethane Cyclohexane Methylcyclohexane	J (all detects) UJ (all non-detects)	A	Initial calibration (%RSD)

Ballfields Parcels at DoDHF Novato, CA
Volatiles - Laboratory Blank Data Qualification Summary - SDG K2502497

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P
K2502497	TO63-R2-SB04-3-4	Acetone	63U ug/Kg	A

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R2-SB04-0-0.5
 Lab Code: K2502497-001
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	6.3	0.88	1	04/11/05	04/12/05	KWG0505901	
Chloromethane	ND	U	6.3	1.3	1	04/11/05	04/12/05	KWG0505901	
Vinyl Chloride	ND	U	6.3	0.78	1	04/11/05	04/12/05	KWG0505901	
Bromomethane	ND	U	6.3	1.1	1	04/11/05	04/12/05	KWG0505901	
Chloroethane	ND	U	6.3	0.98	1	04/11/05	04/12/05	KWG0505901	
Trichlorofluoromethane	ND	U	6.3	0.92	1	04/11/05	04/12/05	KWG0505901	
Trichlorotrifluoroethane	ND	U	6.3	0.93	1	04/11/05	04/12/05	KWG0505901	
Acetone	ND	U	26	13	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethene	ND	U	6.3	0.90	1	04/11/05	04/12/05	KWG0505901	
Methyl Acetate	ND	U	6.3	0.93	1	04/11/05	04/12/05	KWG0505901	
Carbon Disulfide	ND	U	6.3	1.9	1	04/11/05	04/12/05	KWG0505901	
Diisopropyl Ether	ND	U	13	0.43	1	04/11/05	04/12/05	KWG0505901	
Methylene Chloride	ND	U	13	3.2	1	04/11/05	04/12/05	KWG0505901	
Methyl tert-Butyl Ether	ND	U	6.3	0.82	1	04/11/05	04/12/05	KWG0505901	
trans-1,2-Dichloroethene	ND	U	6.3	0.92	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethane	ND	U	6.3	0.98	1	04/11/05	04/12/05	KWG0505901	
2-Butanone (MEK)	ND	U	26	16	1	04/11/05	04/12/05	KWG0505901	
cis-1,2-Dichloroethene	ND	U	6.3	1.1	1	04/11/05	04/12/05	KWG0505901	
Chloroform	ND	U	6.3	0.72	1	04/11/05	04/12/05	KWG0505901	
1,1,1-Trichloroethane (TCA)	ND	U	6.3	0.72	1	04/11/05	04/12/05	KWG0505901	
Cyclohexane	ND	U	6.3	0.85	1	04/11/05	04/12/05	KWG0505901	
Carbon Tetrachloride	ND	U	6.3	0.76	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloroethane (EDC)	ND	U	6.3	0.85	1	04/11/05	04/12/05	KWG0505901	
Benzene	ND	U	6.3	1.0	1	04/11/05	04/12/05	KWG0505901	
Trichloroethene (TCE)	ND	U	6.3	0.36	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloropropane	ND	U	6.3	0.91	1	04/11/05	04/12/05	KWG0505901	
Bromodichloromethane	ND	U	6.3	0.67	1	04/11/05	04/12/05	KWG0505901	
Methylcyclohexane	ND	U	6.3	0.90	1	04/11/05	04/12/05	KWG0505901	
2-Hexanone	ND	U	26	7.7	1	04/11/05	04/12/05	KWG0505901	
cis-1,3-Dichloropropene	ND	U	6.3	0.96	1	04/11/05	04/12/05	KWG0505901	
Toluene	ND	U	6.3	1.1	1	04/11/05	04/12/05	KWG0505901	
trans-1,3-Dichloropropene	ND	U	6.3	0.76	1	04/11/05	04/12/05	KWG0505901	
1,1,2-Trichloroethane	ND	U	6.3	0.87	1	04/11/05	04/12/05	KWG0505901	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R2-SB04-0-0.5
 Lab Code: K2502497-001
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	26	6.9	1	04/11/05	04/12/05	KWG0505901	
Tetrachloroethene (PCE)	ND	U	6.3	0.39	1	04/11/05	04/12/05	KWG0505901	
Dibromochloromethane	ND	U	6.3	0.76	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromoethane (EDB)	ND	U	26	1.0	1	04/11/05	04/12/05	KWG0505901	
Chlorobenzene	ND	U	6.3	0.88	1	04/11/05	04/12/05	KWG0505901	
Ethylbenzene	ND	U	6.3	0.72	1	04/11/05	04/12/05	KWG0505901	
m,p-Xylenes	ND	U	6.3	1.9	1	04/11/05	04/12/05	KWG0505901	
o-Xylene	ND	U	6.3	0.87	1	04/11/05	04/12/05	KWG0505901	
Styrene	ND	U	6.3	0.92	1	04/11/05	04/12/05	KWG0505901	
Bromoform	ND	U	6.3	0.97	1	04/11/05	04/12/05	KWG0505901	
Isopropylbenzene	ND	U	26	0.86	1	04/11/05	04/12/05	KWG0505901	
1,1,2,2-Tetrachloroethane	ND	U	6.3	0.93	1	04/11/05	04/12/05	KWG0505901	
1,3-Dichlorobenzene	ND	U	6.3	0.90	1	04/11/05	04/12/05	KWG0505901	
1,4-Dichlorobenzene	ND	U	6.3	1.1	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichlorobenzene	ND	U	6.3	0.82	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromo-3-chloropropane	ND	U	26	1.1	1	04/11/05	04/12/05	KWG0505901	
1,2,4-Trichlorobenzene	ND	U	26	0.97	1	04/11/05	04/12/05	KWG0505901	
Naphthalene	ND	U	26	1.2	1	04/11/05	04/12/05	KWG0505901	
Bromochloromethane	ND	U	6.3	1.3	1	04/11/05	04/12/05	KWG0505901	
1,2,3-Trichlorobenzene	ND	U	26	1.2	1	04/11/05	04/12/05	KWG0505901	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	104	70-119	04/12/05	Acceptable
Toluene-d8	111	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	110	66-122	04/12/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R2-SB04-3-4
 Lab Code: K2502497-002
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	9.7	1.4	1	04/11/05	04/12/05	KWG0505901	
Chloromethane	ND	U	9.7	2.0	1	04/11/05	04/12/05	KWG0505901	
Vinyl Chloride	ND	U	9.7	1.2	1	04/11/05	04/12/05	KWG0505901	
Bromomethane	ND	U	9.7	1.6	1	04/11/05	04/12/05	KWG0505901	
Chloroethane	ND	U	9.7	1.6	1	04/11/05	04/12/05	KWG0505901	
Trichlorofluoromethane	ND	U	9.7	1.5	1	04/11/05	04/12/05	KWG0505901	
Trichlorotrifluoroethane	ND	U	9.7	1.5	1	04/11/05	04/12/05	KWG0505901	
Acetone	63	U	39	20	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethene	ND	U	9.7	1.4	1	04/11/05	04/12/05	KWG0505901	
Methyl Acetate	ND	U	9.7	1.5	1	04/11/05	04/12/05	KWG0505901	
Carbon Disulfide	ND	U	9.7	2.9	1	04/11/05	04/12/05	KWG0505901	
Diisopropyl Ether	ND	U	20	0.66	1	04/11/05	04/12/05	KWG0505901	
Methylene Chloride	ND	U	20	4.9	1	04/11/05	04/12/05	KWG0505901	
Methyl tert-Butyl Ether	ND	U	9.7	1.3	1	04/11/05	04/12/05	KWG0505901	
trans-1,2-Dichloroethene	ND	U	9.7	1.5	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethane	ND	U	9.7	1.6	1	04/11/05	04/12/05	KWG0505901	
2-Butanone (MEK)	ND	U	39	24	1	04/11/05	04/12/05	KWG0505901	
cis-1,2-Dichloroethene	ND	U	9.7	1.6	1	04/11/05	04/12/05	KWG0505901	
Chloroform	ND	U	9.7	1.1	1	04/11/05	04/12/05	KWG0505901	
1,1,1-Trichloroethane (TCA)	ND	U	9.7	1.1	1	04/11/05	04/12/05	KWG0505901	
Cyclohexane	ND	U	9.7	1.3	1	04/11/05	04/12/05	KWG0505901	
Carbon Tetrachloride	ND	U	9.7	1.2	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloroethane (EDC)	ND	U	9.7	1.3	1	04/11/05	04/12/05	KWG0505901	
Benzene	ND	U	9.7	1.6	1	04/11/05	04/12/05	KWG0505901	
Trichloroethene (TCE)	ND	U	9.7	0.54	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloropropane	ND	U	9.7	1.4	1	04/11/05	04/12/05	KWG0505901	
Bromodichloromethane	ND	U	9.7	1.1	1	04/11/05	04/12/05	KWG0505901	
Methylcyclohexane	ND	U	9.7	1.4	1	04/11/05	04/12/05	KWG0505901	
2-Hexanone	ND	U	39	12	1	04/11/05	04/12/05	KWG0505901	
cis-1,3-Dichloropropene	ND	U	9.7	1.5	1	04/11/05	04/12/05	KWG0505901	
Toluene	ND	U	9.7	1.7	1	04/11/05	04/12/05	KWG0505901	
trans-1,3-Dichloropropene	ND	U	9.7	1.2	1	04/11/05	04/12/05	KWG0505901	
1,1,2-Trichloroethane	ND	U	9.7	1.4	1	04/11/05	04/12/05	KWG0505901	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R2-SB04-3-4
 Lab Code: K2502497-002
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	39	11	1	04/11/05	04/12/05	KWG0505901	
Tetrachloroethene (PCE)	ND	U	9.7	0.60	1	04/11/05	04/12/05	KWG0505901	
Dibromochloromethane	ND	U	9.7	1.2	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromoethane (EDB)	ND	U	39	1.6	1	04/11/05	04/12/05	KWG0505901	
Chlorobenzene	ND	U	9.7	1.4	1	04/11/05	04/12/05	KWG0505901	
Ethylbenzene	ND	U	9.7	1.1	1	04/11/05	04/12/05	KWG0505901	
m,p-Xylenes	ND	U	9.7	2.9	1	04/11/05	04/12/05	KWG0505901	
o-Xylene	ND	U	9.7	1.4	1	04/11/05	04/12/05	KWG0505901	
Styrene	ND	U	9.7	1.5	1	04/11/05	04/12/05	KWG0505901	
Bromoform	ND	U	9.7	1.5	1	04/11/05	04/12/05	KWG0505901	
Isopropylbenzene	ND	U	39	1.4	1	04/11/05	04/12/05	KWG0505901	
1,1,2,2-Tetrachloroethane	ND	U	9.7	1.5	1	04/11/05	04/12/05	KWG0505901	
1,3-Dichlorobenzene	ND	U	9.7	1.4	1	04/11/05	04/12/05	KWG0505901	
1,4-Dichlorobenzene	ND	U	9.7	1.6	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichlorobenzene	ND	U	9.7	1.3	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromo-3-chloropropane	ND	U	39	1.7	1	04/11/05	04/12/05	KWG0505901	
1,2,4-Trichlorobenzene	ND	U	39	1.5	1	04/11/05	04/12/05	KWG0505901	
Naphthalene	ND	U	39	1.8	1	04/11/05	04/12/05	KWG0505901	
Bromochloromethane	ND	U	9.7	1.9	1	04/11/05	04/12/05	KWG0505901	
1,2,3-Trichlorobenzene	ND	U	39	1.8	1	04/11/05	04/12/05	KWG0505901	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	107	70-119	04/12/05	Acceptable
Toluene-d8	108	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	105	66-122	04/12/05	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R2-SB01-0-0.5
 Lab Code: K2502497-003
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	
Chloromethane	ND	U	6.5	1.6	1	04/11/05	04/12/05	KWG0505901	
Vinyl Chloride	ND	U	6.5	0.96	1	04/11/05	04/12/05	KWG0505901	
Bromomethane	ND	U	6.5	1.3	1	04/11/05	04/12/05	KWG0505901	
Chloroethane	ND	U	6.5	1.3	1	04/11/05	04/12/05	KWG0505901	
Trichlorofluoromethane	ND	U	6.5	1.2	1	04/11/05	04/12/05	KWG0505901	
Trichlorotrifluoroethane	ND	U	6.5	1.2	1	04/11/05	04/12/05	KWG0505901	
Acetone	ND	U	26	16	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethene	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	
Methyl Acetate	ND	U	6.5	1.2	1	04/11/05	04/12/05	KWG0505901	
Carbon Disulfide	ND	U	6.5	2.4	1	04/11/05	04/12/05	KWG0505901	
Diisopropyl Ether	ND	U	13	0.53	1	04/11/05	04/12/05	KWG0505901	
Methylene Chloride	ND	U	13	3.9	1	04/11/05	04/12/05	KWG0505901	
Methyl tert-Butyl Ether	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	
trans-1,2-Dichloroethene	ND	U	6.5	1.2	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethane	ND	U	6.5	1.3	1	04/11/05	04/12/05	KWG0505901	
2-Butanone (MEK)	ND	U	26	19	1	04/11/05	04/12/05	KWG0505901	
cis-1,2-Dichloroethene	ND	U	6.5	1.3	1	04/11/05	04/12/05	KWG0505901	
Chloroform	ND	U	6.5	0.89	1	04/11/05	04/12/05	KWG0505901	
1,1,1-Trichloroethane (TCA)	ND	U	6.5	0.89	1	04/11/05	04/12/05	KWG0505901	
Cyclohexane	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	
Carbon Tetrachloride	ND	U	6.5	0.93	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloroethane (EDC)	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	
Benzene	ND	U	6.5	1.3	1	04/11/05	04/12/05	KWG0505901	
Trichloroethene (TCE)	ND	U	6.5	0.44	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloropropane	ND	U	6.5	1.2	1	04/11/05	04/12/05	KWG0505901	
Bromodichloromethane	ND	U	6.5	0.82	1	04/11/05	04/12/05	KWG0505901	
Methylcyclohexane	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	
2-Hexanone	ND	U	26	9.5	1	04/11/05	04/12/05	KWG0505901	
cis-1,3-Dichloropropene	ND	U	6.5	1.2	1	04/11/05	04/12/05	KWG0505901	
Toluene	ND	U	6.5	1.3	1	04/11/05	04/12/05	KWG0505901	
trans-1,3-Dichloropropene	ND	U	6.5	0.93	1	04/11/05	04/12/05	KWG0505901	
1,1,2-Trichloroethane	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R2-SB01-0-0.5
 Lab Code: K2502497-003
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	26	8.6	1	04/11/05	04/12/05	KWG0505901	
Tetrachloroethene (PCE)	ND	U	6.5	0.48	1	04/11/05	04/12/05	KWG0505901	
Dibromochloromethane	ND	U	6.5	0.93	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromoethane (EDB)	ND	U	26	1.3	1	04/11/05	04/12/05	KWG0505901	
Chlorobenzene	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	
Ethylbenzene	ND	U	6.5	0.89	1	04/11/05	04/12/05	KWG0505901	
m,p-Xylenes	ND	U	6.5	2.4	1	04/11/05	04/12/05	KWG0505901	
o-Xylene	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	
Styrene	ND	U	6.5	1.2	1	04/11/05	04/12/05	KWG0505901	
Bromoform	ND	U	6.5	1.2	1	04/11/05	04/12/05	KWG0505901	
Isopropylbenzene	ND	U	26	1.1	1	04/11/05	04/12/05	KWG0505901	
1,1,2,2-Tetrachloroethane	ND	U	6.5	1.2	1	04/11/05	04/12/05	KWG0505901	
1,3-Dichlorobenzene	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	
1,4-Dichlorobenzene	ND	U	6.5	1.3	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichlorobenzene	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromo-3-chloropropane	ND	U	26	1.4	1	04/11/05	04/12/05	KWG0505901	
1,2,4-Trichlorobenzene	ND	U	26	1.2	1	04/11/05	04/12/05	KWG0505901	
Naphthalene	ND	U	26	1.4	1	04/11/05	04/12/05	KWG0505901	
Bromochloromethane	ND	U	6.5	1.6	1	04/11/05	04/12/05	KWG0505901	
1,2,3-Trichlorobenzene	ND	U	26	1.4	1	04/11/05	04/12/05	KWG0505901	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	70-119	04/12/05	Acceptable
Toluene-d8	108	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	105	66-122	04/12/05	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R2-SB01-0-0.5 DUP
 Lab Code: K2502497-004
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	
Chloromethane	ND	U	6.5	1.5	1	04/11/05	04/12/05	KWG0505901	
Vinyl Chloride	ND	U	6.5	0.90	1	04/11/05	04/12/05	KWG0505901	
Bromomethane	ND	U	6.5	1.2	1	04/11/05	04/12/05	KWG0505901	UJ
Chloroethane	ND	U	6.5	1.2	1	04/11/05	04/12/05	KWG0505901	
Trichlorofluoromethane	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	
Trichlorotrifluoroethane	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	
Acetone	ND	U	26	15	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethene	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	
Methyl Acetate	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	
Carbon Disulfide	ND	U	6.5	2.2	1	04/11/05	04/12/05	KWG0505901	
Diisopropyl Ether	ND	U	13	0.49	1	04/11/05	04/12/05	KWG0505901	
Methylene Chloride	ND	U	13	3.7	1	04/11/05	04/12/05	KWG0505901	
Methyl tert-Butyl Ether	ND	U	6.5	0.94	1	04/11/05	04/12/05	KWG0505901	
trans-1,2-Dichloroethene	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethane	ND	U	6.5	1.2	1	04/11/05	04/12/05	KWG0505901	
2-Butanone (MEK)	ND	U	26	18	1	04/11/05	04/12/05	KWG0505901	
cis-1,2-Dichloroethene	ND	U	6.5	1.2	1	04/11/05	04/12/05	KWG0505901	
Chloroform	ND	U	6.5	0.83	1	04/11/05	04/12/05	KWG0505901	
1,1,1-Trichloroethane (TCA)	ND	U	6.5	0.83	1	04/11/05	04/12/05	KWG0505901	
Cyclohexane	ND	U	6.5	0.97	1	04/11/05	04/12/05	KWG0505901	UJ
Carbon Tetrachloride	ND	U	6.5	0.87	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloroethane (EDC)	ND	U	6.5	0.97	1	04/11/05	04/12/05	KWG0505901	
Benzene	ND	U	6.5	1.2	1	04/11/05	04/12/05	KWG0505901	
Trichloroethene (TCE)	ND	U	6.5	0.41	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloropropane	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	
Bromodichloromethane	ND	U	6.5	0.77	1	04/11/05	04/12/05	KWG0505901	
Methylcyclohexane	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	UJ
2-Hexanone	ND	U	26	8.8	1	04/11/05	04/12/05	KWG0505901	
cis-1,3-Dichloropropene	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	
Toluene	ND	U	6.5	1.3	1	04/11/05	04/12/05	KWG0505901	
trans-1,3-Dichloropropene	ND	U	6.5	0.87	1	04/11/05	04/12/05	KWG0505901	
1,1,2-Trichloroethane	ND	U	6.5	1.0	1	04/11/05	04/12/05	KWG0505901	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R2-SB01-0-0.5 DUP
 Lab Code: K2502497-004
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	26	8.0	1	04/11/05	04/12/05	KWG0505901	
Tetrachloroethene (PCE)	ND	U	6.5	0.45	1	04/11/05	04/12/05	KWG0505901	
Dibromochloromethane	ND	U	6.5	0.87	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromoethane (EDB)	ND	U	26	1.2	1	04/11/05	04/12/05	KWG0505901	
Chlorobenzene	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	
Ethylbenzene	ND	U	6.5	0.83	1	04/11/05	04/12/05	KWG0505901	
m,p-Xylenes	ND	U	6.5	2.2	1	04/11/05	04/12/05	KWG0505901	
o-Xylene	ND	U	6.5	1.0	1	04/11/05	04/12/05	KWG0505901	
Styrene	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	
Bromoform	ND	U	6.5	1.2	1	04/11/05	04/12/05	KWG0505901	
Isopropylbenzene	ND	U	26	0.98	1	04/11/05	04/12/05	KWG0505901	
1,1,2,2-Tetrachloroethane	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	
1,3-Dichlorobenzene	ND	U	6.5	1.1	1	04/11/05	04/12/05	KWG0505901	
1,4-Dichlorobenzene	ND	U	6.5	1.2	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichlorobenzene	ND	U	6.5	0.94	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromo-3-chloropropane	ND	U	26	1.3	1	04/11/05	04/12/05	KWG0505901	
1,2,4-Trichlorobenzene	ND	U	26	1.2	1	04/11/05	04/12/05	KWG0505901	
Naphthalene	ND	U	26	1.3	1	04/11/05	04/12/05	KWG0505901	
Bromochloromethane	ND	U	6.5	1.5	1	04/11/05	04/12/05	KWG0505901	
1,2,3-Trichlorobenzene	ND	U	26	1.3	1	04/11/05	04/12/05	KWG0505901	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	105	70-119	04/12/05	Acceptable
Toluene-d8	108	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	103	66-122	04/12/05	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R2-SB01-1-2
 Lab Code: K2502497-005
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	7.9	1.2	1	04/11/05	04/12/05	KWG0505901	
Chloromethane	ND	U	7.9	1.6	1	04/11/05	04/12/05	KWG0505901	
Vinyl Chloride	ND	U	7.9	0.98	1	04/11/05	04/12/05	KWG0505901	
Bromomethane	ND	U	7.9	1.3	1	04/11/05	04/12/05	KWG0505901	
Chloroethane	ND	U	7.9	1.3	1	04/11/05	04/12/05	KWG0505901	
Trichlorofluoromethane	ND	U	7.9	1.2	1	04/11/05	04/12/05	KWG0505901	
Trichlorotrifluoroethane	ND	U	7.9	1.2	1	04/11/05	04/12/05	KWG0505901	
Acetone	ND	U	32	16	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethene	ND	U	7.9	1.2	1	04/11/05	04/12/05	KWG0505901	
Methyl Acetate	ND	U	7.9	1.2	1	04/11/05	04/12/05	KWG0505901	
Carbon Disulfide	ND	U	7.9	2.4	1	04/11/05	04/12/05	KWG0505901	
Diisopropyl Ether	ND	U	16	0.54	1	04/11/05	04/12/05	KWG0505901	
Methylene Chloride	ND	U	16	4.0	1	04/11/05	04/12/05	KWG0505901	
Methyl tert-Butyl Ether	ND	U	7.9	1.1	1	04/11/05	04/12/05	KWG0505901	
trans-1,2-Dichloroethene	ND	U	7.9	1.2	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethane	ND	U	7.9	1.3	1	04/11/05	04/12/05	KWG0505901	
2-Butanone (MEK)	ND	U	32	19	1	04/11/05	04/12/05	KWG0505901	
cis-1,2-Dichloroethene	ND	U	7.9	1.4	1	04/11/05	04/12/05	KWG0505901	
Chloroform	ND	U	7.9	0.91	1	04/11/05	04/12/05	KWG0505901	
1,1,1-Trichloroethane (TCA)	ND	U	7.9	0.91	1	04/11/05	04/12/05	KWG0505901	
Cyclohexane	ND	U	7.9	1.1	1	04/11/05	04/12/05	KWG0505901	
Carbon Tetrachloride	ND	U	7.9	0.95	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloroethane (EDC)	ND	U	7.9	1.1	1	04/11/05	04/12/05	KWG0505901	
Benzene	ND	U	7.9	1.3	1	04/11/05	04/12/05	KWG0505901	
Trichloroethene (TCE)	ND	U	7.9	0.45	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloropropane	ND	U	7.9	1.2	1	04/11/05	04/12/05	KWG0505901	
Bromodichloromethane	ND	U	7.9	0.84	1	04/11/05	04/12/05	KWG0505901	
Methylcyclohexane	ND	U	7.9	1.2	1	04/11/05	04/12/05	KWG0505901	
2-Hexanone	ND	U	32	9.7	1	04/11/05	04/12/05	KWG0505901	
cis-1,3-Dichloropropene	ND	U	7.9	1.3	1	04/11/05	04/12/05	KWG0505901	
Toluene	ND	U	7.9	1.4	1	04/11/05	04/12/05	KWG0505901	
trans-1,3-Dichloropropene	ND	U	7.9	0.95	1	04/11/05	04/12/05	KWG0505901	
1,1,2-Trichloroethane	ND	U	7.9	1.1	1	04/11/05	04/12/05	KWG0505901	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R2-SB01-1-2
 Lab Code: K2502497-005
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	32	8.7	1	04/11/05	04/12/05	KWG0505901	
Tetrachloroethene (PCE)	ND	U	7.9	0.49	1	04/11/05	04/12/05	KWG0505901	
Dibromochloromethane	ND	U	7.9	0.95	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromoethane (EDB)	ND	U	32	1.3	1	04/11/05	04/12/05	KWG0505901	
Chlorobenzene	ND	U	7.9	1.2	1	04/11/05	04/12/05	KWG0505901	
Ethylbenzene	ND	U	7.9	0.91	1	04/11/05	04/12/05	KWG0505901	
m,p-Xylenes	ND	U	7.9	2.4	1	04/11/05	04/12/05	KWG0505901	
o-Xylene	ND	U	7.9	1.1	1	04/11/05	04/12/05	KWG0505901	
Styrene	ND	U	7.9	1.2	1	04/11/05	04/12/05	KWG0505901	
Bromoform	ND	U	7.9	1.3	1	04/11/05	04/12/05	KWG0505901	
Isopropylbenzene	ND	U	32	1.1	1	04/11/05	04/12/05	KWG0505901	
1,1,2,2-Tetrachloroethane	ND	U	7.9	1.2	1	04/11/05	04/12/05	KWG0505901	
1,3-Dichlorobenzene	ND	U	7.9	1.2	1	04/11/05	04/12/05	KWG0505901	
1,4-Dichlorobenzene	ND	U	7.9	1.3	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichlorobenzene	ND	U	7.9	1.1	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromo-3-chloropropane	ND	U	32	1.4	1	04/11/05	04/12/05	KWG0505901	
1,2,4-Trichlorobenzene	ND	U	32	1.3	1	04/11/05	04/12/05	KWG0505901	
Naphthalene	ND	U	32	1.5	1	04/11/05	04/12/05	KWG0505901	
Bromochloromethane	ND	U	7.9	1.6	1	04/11/05	04/12/05	KWG0505901	
1,2,3-Trichlorobenzene	ND	U	32	1.5	1	04/11/05	04/12/05	KWG0505901	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	70-119	04/12/05	Acceptable
Toluene-d8	106	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	101	66-122	04/12/05	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R1-SB04-0-0.5
 Lab Code: K2502497-006
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	5.5	0.80	1	04/11/05	04/12/05	KWG0505901	
Chloromethane	ND	U	5.5	1.2	1	04/11/05	04/12/05	KWG0505901	
Vinyl Chloride	ND	U	5.5	0.71	1	04/11/05	04/12/05	KWG0505901	
Bromomethane	ND	U	5.5	0.91	1	04/11/05	04/12/05	KWG0505901	
Chloroethane	ND	U	5.5	0.89	1	04/11/05	04/12/05	KWG0505901	
Trichlorofluoromethane	ND	U	5.5	0.83	1	04/11/05	04/12/05	KWG0505901	
Trichlorotrifluoroethane	ND	U	5.5	0.84	1	04/11/05	04/12/05	KWG0505901	
Acetone	ND	U	22	12	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethene	ND	U	5.5	0.81	1	04/11/05	04/12/05	KWG0505901	
Methyl Acetate	ND	U	5.5	0.84	1	04/11/05	04/12/05	KWG0505901	
Carbon Disulfide	ND	U	5.5	1.7	1	04/11/05	04/12/05	KWG0505901	
Diisopropyl Ether	ND	U	11	0.39	1	04/11/05	04/12/05	KWG0505901	
Methylene Chloride	3.5	J	11	2.9	1	04/11/05	04/12/05	KWG0505901	
Methyl tert-Butyl Ether	ND	U	5.5	0.74	1	04/11/05	04/12/05	KWG0505901	
trans-1,2-Dichloroethene	ND	U	5.5	0.83	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethane	ND	U	5.5	0.89	1	04/11/05	04/12/05	KWG0505901	
2-Butanone (MEK)	ND	U	22	14	1	04/11/05	04/12/05	KWG0505901	
cis-1,2-Dichloroethene	ND	U	5.5	0.94	1	04/11/05	04/12/05	KWG0505901	
Chloroform	ND	U	5.5	0.65	1	04/11/05	04/12/05	KWG0505901	
1,1,1-Trichloroethane (TCA)	ND	U	5.5	0.65	1	04/11/05	04/12/05	KWG0505901	
Cyclohexane	ND	U	5.5	0.76	1	04/11/05	04/12/05	KWG0505901	
Carbon Tetrachloride	ND	U	5.5	0.68	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloroethane (EDC)	ND	U	5.5	0.76	1	04/11/05	04/12/05	KWG0505901	
Benzene	ND	U	5.5	0.90	1	04/11/05	04/12/05	KWG0505901	
Trichloroethene (TCE)	ND	U	5.5	0.32	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloropropane	ND	U	5.5	0.82	1	04/11/05	04/12/05	KWG0505901	
Bromodichloromethane	ND	U	5.5	0.61	1	04/11/05	04/12/05	KWG0505901	
Methylcyclohexane	ND	U	5.5	0.81	1	04/11/05	04/12/05	KWG0505901	
2-Hexanone	ND	U	22	7.0	1	04/11/05	04/12/05	KWG0505901	
cis-1,3-Dichloropropene	ND	U	5.5	0.87	1	04/11/05	04/12/05	KWG0505901	
Toluene	ND	U	5.5	0.96	1	04/11/05	04/12/05	KWG0505901	
trans-1,3-Dichloropropene	ND	U	5.5	0.68	1	04/11/05	04/12/05	KWG0505901	
1,1,2-Trichloroethane	ND	U	5.5	0.79	1	04/11/05	04/12/05	KWG0505901	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R1-SB04-0-0.5
 Lab Code: K2502497-006
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	22	6.3	1	04/11/05	04/12/05	KWG0505901	
Tetrachloroethene (PCE)	ND	U	5.5	0.36	1	04/11/05	04/12/05	KWG0505901	
Dibromochloromethane	ND	U	5.5	0.68	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromoethane (EDB)	ND	U	22	0.90	1	04/11/05	04/12/05	KWG0505901	
Chlorobenzene	ND	U	5.5	0.80	1	04/11/05	04/12/05	KWG0505901	
Ethylbenzene	ND	U	5.5	0.65	1	04/11/05	04/12/05	KWG0505901	
m,p-Xylenes	ND	U	5.5	1.7	1	04/11/05	04/12/05	KWG0505901	
o-Xylene	ND	U	5.5	0.79	1	04/11/05	04/12/05	KWG0505901	
Styrene	ND	U	5.5	0.83	1	04/11/05	04/12/05	KWG0505901	
Bromoform	ND	U	5.5	0.88	1	04/11/05	04/12/05	KWG0505901	
Isopropylbenzene	ND	U	22	0.78	1	04/11/05	04/12/05	KWG0505901	
1,1,2,2-Tetrachloroethane	ND	U	5.5	0.84	1	04/11/05	04/12/05	KWG0505901	
1,3-Dichlorobenzene	ND	U	5.5	0.81	1	04/11/05	04/12/05	KWG0505901	
1,4-Dichlorobenzene	ND	U	5.5	0.93	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichlorobenzene	ND	U	5.5	0.74	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromo-3-chloropropane	ND	U	22	0.97	1	04/11/05	04/12/05	KWG0505901	
1,2,4-Trichlorobenzene	ND	U	22	0.88	1	04/11/05	04/12/05	KWG0505901	
Naphthalene	ND	U	22	1.1	1	04/11/05	04/12/05	KWG0505901	
Bromochloromethane	ND	U	5.5	1.2	1	04/11/05	04/12/05	KWG0505901	
1,2,3-Trichlorobenzene	ND	U	22	1.1	1	04/11/05	04/12/05	KWG0505901	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	105	70-119	04/12/05	Acceptable
Toluene-d8	110	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	110	66-122	04/12/05	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R1-SB04-4-5
 Lab Code: K2502497-007
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	9.4	1.4	1	04/11/05	04/12/05	KWG0505901	
Chloromethane	ND	U	9.4	1.9	1	04/11/05	04/12/05	KWG0505901	
Vinyl Chloride	ND	U	9.4	1.2	1	04/11/05	04/12/05	KWG0505901	
Bromomethane	ND	U	9.4	1.5	1	04/11/05	04/12/05	KWG0505901	
Chloroethane	ND	U	9.4	1.5	1	04/11/05	04/12/05	KWG0505901	
Trichlorofluoromethane	ND	U	9.4	1.4	1	04/11/05	04/12/05	KWG0505901	
Trichlorotrifluoroethane	ND	U	9.4	1.4	1	04/11/05	04/12/05	KWG0505901	
Acetone	ND	U	38	19	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethene	ND	U	9.4	1.4	1	04/11/05	04/12/05	KWG0505901	
Methyl Acetate	ND	U	9.4	1.4	1	04/11/05	04/12/05	KWG0505901	
Carbon Disulfide	ND	U	9.4	2.8	1	04/11/05	04/12/05	KWG0505901	
Diisopropyl Ether	ND	U	19	0.64	1	04/11/05	04/12/05	KWG0505901	
Methylene Chloride	ND	U	19	4.7	1	04/11/05	04/12/05	KWG0505901	
Methyl tert-Butyl Ether	ND	U	9.4	1.3	1	04/11/05	04/12/05	KWG0505901	
trans-1,2-Dichloroethene	ND	U	9.4	1.4	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethane	ND	U	9.4	1.5	1	04/11/05	04/12/05	KWG0505901	
2-Butanone (MEK)	ND	U	38	23	1	04/11/05	04/12/05	KWG0505901	
cis-1,2-Dichloroethene	ND	U	9.4	1.6	1	04/11/05	04/12/05	KWG0505901	
Chloroform	ND	U	9.4	1.1	1	04/11/05	04/12/05	KWG0505901	
1,1,1-Trichloroethane (TCA)	ND	U	9.4	1.1	1	04/11/05	04/12/05	KWG0505901	
Cyclohexane	ND	U	9.4	1.3	1	04/11/05	04/12/05	KWG0505901	
Carbon Tetrachloride	ND	U	9.4	1.2	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloroethane (EDC)	ND	U	9.4	1.3	1	04/11/05	04/12/05	KWG0505901	
Benzene	ND	U	9.4	1.5	1	04/11/05	04/12/05	KWG0505901	
Trichloroethene (TCE)	ND	U	9.4	0.53	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloropropane	ND	U	9.4	1.4	1	04/11/05	04/12/05	KWG0505901	
Bromodichloromethane	ND	U	9.4	0.99	1	04/11/05	04/12/05	KWG0505901	
Methylcyclohexane	ND	U	9.4	1.4	1	04/11/05	04/12/05	KWG0505901	
2-Hexanone	ND	U	38	12	1	04/11/05	04/12/05	KWG0505901	
cis-1,3-Dichloropropene	ND	U	9.4	1.5	1	04/11/05	04/12/05	KWG0505901	
Toluene	ND	U	9.4	1.6	1	04/11/05	04/12/05	KWG0505901	
trans-1,3-Dichloropropene	ND	U	9.4	1.2	1	04/11/05	04/12/05	KWG0505901	
1,1,2-Trichloroethane	ND	U	9.4	1.3	1	04/11/05	04/12/05	KWG0505901	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R1-SB04-4-5
 Lab Code: K2502497-007
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND U	38	11	1	04/11/05	04/12/05	KWG0505901	
Tetrachloroethene (PCE)	ND U	9.4	0.58	1	04/11/05	04/12/05	KWG0505901	
Dibromochloromethane	ND U	9.4	1.2	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromoethane (EDB)	ND U	38	1.5	1	04/11/05	04/12/05	KWG0505901	
Chlorobenzene	ND U	9.4	1.4	1	04/11/05	04/12/05	KWG0505901	
Ethylbenzene	ND U	9.4	1.1	1	04/11/05	04/12/05	KWG0505901	
m,p-Xylenes	ND U	9.4	2.8	1	04/11/05	04/12/05	KWG0505901	
o-Xylene	ND U	9.4	1.3	1	04/11/05	04/12/05	KWG0505901	
Styrene	ND U	9.4	1.4	1	04/11/05	04/12/05	KWG0505901	
Bromoform	ND U	9.4	1.5	1	04/11/05	04/12/05	KWG0505901	
Isopropylbenzene	ND U	38	1.3	1	04/11/05	04/12/05	KWG0505901	
1,1,2,2-Tetrachloroethane	ND U	9.4	1.4	1	04/11/05	04/12/05	KWG0505901	
1,3-Dichlorobenzene	ND U	9.4	1.4	1	04/11/05	04/12/05	KWG0505901	
1,4-Dichlorobenzene	ND U	9.4	1.6	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichlorobenzene	ND U	9.4	1.3	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromo-3-chloropropane	ND U	38	1.6	1	04/11/05	04/12/05	KWG0505901	
1,2,4-Trichlorobenzene	ND U	38	1.5	1	04/11/05	04/12/05	KWG0505901	
Naphthalene	ND U	38	1.7	1	04/11/05	04/12/05	KWG0505901	
Bromochloromethane	ND U	9.4	1.9	1	04/11/05	04/12/05	KWG0505901	
1,2,3-Trichlorobenzene	ND U	38	1.7	1	04/11/05	04/12/05	KWG0505901	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	70-119	04/12/05	Acceptable
Toluene-d8	110	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	110	66-122	04/12/05	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R1-SB01-0-0.5
 Lab Code: K2502497-008
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	4.5	0.79	1	04/11/05	04/12/05	KWG0505901	
Chloromethane	ND	U	4.5	1.2	1	04/11/05	04/12/05	KWG0505901	
Vinyl Chloride	ND	U	4.5	0.70	1	04/11/05	04/12/05	KWG0505901	
Bromomethane	ND	U	4.5	0.90	1	04/11/05	04/12/05	KWG0505901	
Chloroethane	ND	U	4.5	0.88	1	04/11/05	04/12/05	KWG0505901	
Trichlorofluoromethane	ND	U	4.5	0.82	1	04/11/05	04/12/05	KWG0505901	
Trichlorotrifluoroethane	ND	U	4.5	0.83	1	04/11/05	04/12/05	KWG0505901	
Acetone	ND	U	18	12	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethene	ND	U	4.5	0.80	1	04/11/05	04/12/05	KWG0505901	
Methyl Acetate	ND	U	4.5	0.83	1	04/11/05	04/12/05	KWG0505901	
Carbon Disulfide	ND	U	4.5	1.7	1	04/11/05	04/12/05	KWG0505901	
Diisopropyl Ether	ND	U	9.0	0.39	1	04/11/05	04/12/05	KWG0505901	
Methylene Chloride	ND	U	9.0	2.8	1	04/11/05	04/12/05	KWG0505901	
Methyl tert-Butyl Ether	ND	U	4.5	0.73	1	04/11/05	04/12/05	KWG0505901	
trans-1,2-Dichloroethene	ND	U	4.5	0.82	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethane	ND	U	4.5	0.88	1	04/11/05	04/12/05	KWG0505901	
2-Butanone (MEK)	ND	U	18	14	1	04/11/05	04/12/05	KWG0505901	
cis-1,2-Dichloroethene	ND	U	4.5	0.93	1	04/11/05	04/12/05	KWG0505901	
Chloroform	ND	U	4.5	0.64	1	04/11/05	04/12/05	KWG0505901	
1,1,1-Trichloroethane (TCA)	ND	U	4.5	0.64	1	04/11/05	04/12/05	KWG0505901	
Cyclohexane	ND	U	4.5	0.75	1	04/11/05	04/12/05	KWG0505901	
Carbon Tetrachloride	ND	U	4.5	0.68	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloroethane (EDC)	ND	U	4.5	0.75	1	04/11/05	04/12/05	KWG0505901	
Benzene	ND	U	4.5	0.89	1	04/11/05	04/12/05	KWG0505901	
Trichloroethene (TCE)	ND	U	4.5	0.32	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloropropane	ND	U	4.5	0.81	1	04/11/05	04/12/05	KWG0505901	
Bromodichloromethane	ND	U	4.5	0.60	1	04/11/05	04/12/05	KWG0505901	
Methylcyclohexane	ND	U	4.5	0.80	1	04/11/05	04/12/05	KWG0505901	
2-Hexanone	ND	U	18	6.9	1	04/11/05	04/12/05	KWG0505901	
cis-1,3-Dichloropropene	ND	U	4.5	0.86	1	04/11/05	04/12/05	KWG0505901	
Toluene	ND	U	4.5	0.94	1	04/11/05	04/12/05	KWG0505901	
trans-1,3-Dichloropropene	ND	U	4.5	0.68	1	04/11/05	04/12/05	KWG0505901	
1,1,2-Trichloroethane	ND	U	4.5	0.78	1	04/11/05	04/12/05	KWG0505901	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R1-SB01-0-0.5
 Lab Code: K2502497-008
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	18	6.2	1	04/11/05	04/12/05	KWG0505901	
Tetrachloroethene (PCE)	ND	U	4.5	0.35	1	04/11/05	04/12/05	KWG0505901	
Dibromochloromethane	ND	U	4.5	0.68	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromoethane (EDB)	ND	U	18	0.89	1	04/11/05	04/12/05	KWG0505901	
Chlorobenzene	ND	U	4.5	0.79	1	04/11/05	04/12/05	KWG0505901	
Ethylbenzene	ND	U	4.5	0.64	1	04/11/05	04/12/05	KWG0505901	
m,p-Xylenes	ND	U	4.5	1.7	1	04/11/05	04/12/05	KWG0505901	
o-Xylene	ND	U	4.5	0.78	1	04/11/05	04/12/05	KWG0505901	
Styrene	ND	U	4.5	0.82	1	04/11/05	04/12/05	KWG0505901	
Bromoform	ND	U	4.5	0.87	1	04/11/05	04/12/05	KWG0505901	
Isopropylbenzene	ND	U	18	0.77	1	04/11/05	04/12/05	KWG0505901	
1,1,2,2-Tetrachloroethane	ND	U	4.5	0.83	1	04/11/05	04/12/05	KWG0505901	
1,3-Dichlorobenzene	ND	U	4.5	0.80	1	04/11/05	04/12/05	KWG0505901	
1,4-Dichlorobenzene	ND	U	4.5	0.92	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichlorobenzene	ND	U	4.5	0.73	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromo-3-chloropropane	ND	U	18	0.96	1	04/11/05	04/12/05	KWG0505901	
1,2,4-Trichlorobenzene	ND	U	18	0.87	1	04/11/05	04/12/05	KWG0505901	
Naphthalene	ND	U	18	1.0	1	04/11/05	04/12/05	KWG0505901	
Bromochloromethane	ND	U	4.5	1.1	1	04/11/05	04/12/05	KWG0505901	
1,2,3-Trichlorobenzene	ND	U	18	1.1	1	04/11/05	04/12/05	KWG0505901	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	70-119	04/12/05	Acceptable
Toluene-d8	110	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	108	66-122	04/12/05	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R1-SB03-0-0.5
 Lab Code: K2502497-009
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	5.4	0.86	1	04/12/05	04/12/05	KWG0506003	
Chloromethane	ND	U	5.4	1.3	1	04/12/05	04/12/05	KWG0506003	
Vinyl Chloride	ND	U	5.4	0.76	1	04/12/05	04/12/05	KWG0506003	
Bromomethane	ND	U	5.4	0.99	1	04/12/05	04/12/05	KWG0506003	US
Chloroethane	ND	U	5.4	0.96	1	04/12/05	04/12/05	KWG0506003	
Trichlorofluoromethane	ND	U	5.4	0.90	1	04/12/05	04/12/05	KWG0506003	
Trichlorotrifluoroethane	ND	U	5.4	0.91	1	04/12/05	04/12/05	KWG0506003	
Acetone	ND	U	22	13	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethene	ND	U	5.4	0.88	1	04/12/05	04/12/05	KWG0506003	
Methyl Acetate	ND	U	5.4	0.91	1	04/12/05	04/12/05	KWG0506003	
Carbon Disulfide	ND	U	5.4	1.9	1	04/12/05	04/12/05	KWG0506003	
Diisopropyl Ether	ND	U	11	0.42	1	04/12/05	04/12/05	KWG0506003	
Methylene Chloride	ND	U	11	3.1	1	04/12/05	04/12/05	KWG0506003	
Methyl tert-Butyl Ether	ND	U	5.4	0.80	1	04/12/05	04/12/05	KWG0506003	
trans-1,2-Dichloroethene	ND	U	5.4	0.90	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethane	ND	U	5.4	0.96	1	04/12/05	04/12/05	KWG0506003	
2-Butanone (MEK)	ND	U	22	15	1	04/12/05	04/12/05	KWG0506003	
cis-1,2-Dichloroethene	ND	U	5.4	1.1	1	04/12/05	04/12/05	KWG0506003	
Chloroform	ND	U	5.4	0.70	1	04/12/05	04/12/05	KWG0506003	
1,1,1-Trichloroethane (TCA)	ND	U	5.4	0.70	1	04/12/05	04/12/05	KWG0506003	
Cyclohexane	ND	U	5.4	0.83	1	04/12/05	04/12/05	KWG0506003	US
Carbon Tetrachloride	ND	U	5.4	0.74	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloroethane (EDC)	ND	U	5.4	0.83	1	04/12/05	04/12/05	KWG0506003	
Benzene	ND	U	5.4	0.97	1	04/12/05	04/12/05	KWG0506003	
Trichloroethene (TCE)	ND	U	5.4	0.35	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloropropane	ND	U	5.4	0.89	1	04/12/05	04/12/05	KWG0506003	
Bromodichloromethane	ND	U	5.4	0.65	1	04/12/05	04/12/05	KWG0506003	
Methylcyclohexane	ND	U	5.4	0.88	1	04/12/05	04/12/05	KWG0506003	US
2-Hexanone	ND	U	22	7.5	1	04/12/05	04/12/05	KWG0506003	
cis-1,3-Dichloropropene	ND	U	5.4	0.94	1	04/12/05	04/12/05	KWG0506003	
Toluene	ND	U	5.4	1.1	1	04/12/05	04/12/05	KWG0506003	
trans-1,3-Dichloropropene	ND	U	5.4	0.74	1	04/12/05	04/12/05	KWG0506003	
1,1,2-Trichloroethane	ND	U	5.4	0.85	1	04/12/05	04/12/05	KWG0506003	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R1-SB03-0-0.5
 Lab Code: K2502497-009
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	22	6.8	1	04/12/05	04/12/05	KWG0506003	
Tetrachloroethene (PCE)	ND	U	5.4	0.38	1	04/12/05	04/12/05	KWG0506003	
Dibromochloromethane	ND	U	5.4	0.74	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromoethane (EDB)	ND	U	22	0.97	1	04/12/05	04/12/05	KWG0506003	
Chlorobenzene	ND	U	5.4	0.86	1	04/12/05	04/12/05	KWG0506003	
Ethylbenzene	ND	U	5.4	0.70	1	04/12/05	04/12/05	KWG0506003	
m,p-Xylenes	ND	U	5.4	1.9	1	04/12/05	04/12/05	KWG0506003	
o-Xylene	ND	U	5.4	0.85	1	04/12/05	04/12/05	KWG0506003	
Styrene	ND	U	5.4	0.90	1	04/12/05	04/12/05	KWG0506003	
Bromoform	ND	U	5.4	0.95	1	04/12/05	04/12/05	KWG0506003	
Isopropylbenzene	ND	U	22	0.84	1	04/12/05	04/12/05	KWG0506003	
1,1,2,2-Tetrachloroethane	ND	U	5.4	0.91	1	04/12/05	04/12/05	KWG0506003	
1,3-Dichlorobenzene	ND	U	5.4	0.88	1	04/12/05	04/12/05	KWG0506003	
1,4-Dichlorobenzene	ND	U	5.4	1.1	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichlorobenzene	ND	U	5.4	0.80	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromo-3-chloropropane	ND	U	22	1.1	1	04/12/05	04/12/05	KWG0506003	
1,2,4-Trichlorobenzene	ND	U	22	0.95	1	04/12/05	04/12/05	KWG0506003	
Naphthalene	ND	U	22	1.1	1	04/12/05	04/12/05	KWG0506003	
Bromochloromethane	ND	U	5.4	1.3	1	04/12/05	04/12/05	KWG0506003	
1,2,3-Trichlorobenzene	ND	U	22	1.2	1	04/12/05	04/12/05	KWG0506003	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	70-119	04/12/05	Acceptable
Toluene-d8	111	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	111	66-122	04/12/05	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R1-SB03-4-5
 Lab Code: K2502497-010
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	8.0	1.2	1	04/12/05	04/12/05	KWG0506003	
Chloromethane	ND	U	8.0	1.6	1	04/12/05	04/12/05	KWG0506003	
Vinyl Chloride	ND	U	8.0	0.99	1	04/12/05	04/12/05	KWG0506003	
Bromomethane	ND	U	8.0	1.3	1	04/12/05	04/12/05	KWG0506003	
Chloroethane	ND	U	8.0	1.3	1	04/12/05	04/12/05	KWG0506003	
Trichlorofluoromethane	ND	U	8.0	1.2	1	04/12/05	04/12/05	KWG0506003	
Trichlorotrifluoroethane	ND	U	8.0	1.2	1	04/12/05	04/12/05	KWG0506003	
Acetone	ND	U	32	16	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethene	ND	U	8.0	1.2	1	04/12/05	04/12/05	KWG0506003	
Methyl Acetate	ND	U	8.0	1.2	1	04/12/05	04/12/05	KWG0506003	
Carbon Disulfide	ND	U	8.0	2.4	1	04/12/05	04/12/05	KWG0506003	
Diisopropyl Ether	ND	U	16	0.55	1	04/12/05	04/12/05	KWG0506003	
Methylene Chloride	ND	U	16	4.0	1	04/12/05	04/12/05	KWG0506003	
Methyl tert-Butyl Ether	ND	U	8.0	1.1	1	04/12/05	04/12/05	KWG0506003	
trans-1,2-Dichloroethene	ND	U	8.0	1.2	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethane	ND	U	8.0	1.3	1	04/12/05	04/12/05	KWG0506003	
2-Butanone (MEK)	ND	U	32	20	1	04/12/05	04/12/05	KWG0506003	
cis-1,2-Dichloroethene	ND	U	8.0	1.4	1	04/12/05	04/12/05	KWG0506003	
Chloroform	ND	U	8.0	0.91	1	04/12/05	04/12/05	KWG0506003	
1,1,1-Trichloroethane (TCA)	ND	U	8.0	0.91	1	04/12/05	04/12/05	KWG0506003	
Cyclohexane	ND	U	8.0	1.1	1	04/12/05	04/12/05	KWG0506003	
Carbon Tetrachloride	ND	U	8.0	0.96	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloroethane (EDC)	ND	U	8.0	1.1	1	04/12/05	04/12/05	KWG0506003	
Benzene	ND	U	8.0	1.3	1	04/12/05	04/12/05	KWG0506003	
Trichloroethene (TCE)	ND	U	8.0	0.45	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloropropane	ND	U	8.0	1.2	1	04/12/05	04/12/05	KWG0506003	
Bromodichloromethane	ND	U	8.0	0.85	1	04/12/05	04/12/05	KWG0506003	
Methylcyclohexane	ND	U	8.0	1.2	1	04/12/05	04/12/05	KWG0506003	
2-Hexanone	ND	U	32	9.8	1	04/12/05	04/12/05	KWG0506003	
cis-1,3-Dichloropropene	ND	U	8.0	1.3	1	04/12/05	04/12/05	KWG0506003	
Toluene	ND	U	8.0	1.4	1	04/12/05	04/12/05	KWG0506003	
trans-1,3-Dichloropropene	ND	U	8.0	0.96	1	04/12/05	04/12/05	KWG0506003	
1,1,2-Trichloroethane	ND	U	8.0	1.2	1	04/12/05	04/12/05	KWG0506003	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R1-SB03-4-5
 Lab Code: K2502497-010
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	32	8.8	1	04/12/05	04/12/05	KWG0506003	
Tetrachloroethene (PCE)	ND	U	8.0	0.50	1	04/12/05	04/12/05	KWG0506003	
Dibromochloromethane	ND	U	8.0	0.96	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromoethane (EDB)	ND	U	32	1.3	1	04/12/05	04/12/05	KWG0506003	
Chlorobenzene	ND	U	8.0	1.2	1	04/12/05	04/12/05	KWG0506003	
Ethylbenzene	ND	U	8.0	0.91	1	04/12/05	04/12/05	KWG0506003	
m,p-Xylenes	ND	U	8.0	2.4	1	04/12/05	04/12/05	KWG0506003	
o-Xylene	ND	U	8.0	1.2	1	04/12/05	04/12/05	KWG0506003	
Styrene	ND	U	8.0	1.2	1	04/12/05	04/12/05	KWG0506003	
Bromoform	ND	U	8.0	1.3	1	04/12/05	04/12/05	KWG0506003	
Isopropylbenzene	ND	U	32	1.1	1	04/12/05	04/12/05	KWG0506003	
1,1,2,2-Tetrachloroethane	ND	U	8.0	1.2	1	04/12/05	04/12/05	KWG0506003	
1,3-Dichlorobenzene	ND	U	8.0	1.2	1	04/12/05	04/12/05	KWG0506003	
1,4-Dichlorobenzene	ND	U	8.0	1.4	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichlorobenzene	ND	U	8.0	1.1	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromo-3-chloropropane	ND	U	32	1.4	1	04/12/05	04/12/05	KWG0506003	
1,2,4-Trichlorobenzene	ND	U	32	1.3	1	04/12/05	04/12/05	KWG0506003	
Naphthalene	ND	U	32	1.5	1	04/12/05	04/12/05	KWG0506003	
Bromochloromethane	ND	U	8.0	1.6	1	04/12/05	04/12/05	KWG0506003	
1,2,3-Trichlorobenzene	ND	U	32	1.5	1	04/12/05	04/12/05	KWG0506003	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	70-119	04/12/05	Acceptable
Toluene-d8	111	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	111	66-122	04/12/05	Acceptable

Comments:

6/17/05

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R4-SB04-0-0.5
 Lab Code: K2502497-011
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	4.2	0.80	1	04/12/05	04/12/05	KWG0506003	
Chloromethane	ND	U	4.2	1.2	1	04/12/05	04/12/05	KWG0506003	
Vinyl Chloride	ND	U	4.2	0.71	1	04/12/05	04/12/05	KWG0506003	
Bromomethane	ND	U	4.2	0.92	1	04/12/05	04/12/05	KWG0506003	US
Chloroethane	ND	U	4.2	0.89	1	04/12/05	04/12/05	KWG0506003	
Trichlorofluoromethane	ND	U	4.2	0.84	1	04/12/05	04/12/05	KWG0506003	
Trichlorotrifluoroethane	ND	U	4.2	0.85	1	04/12/05	04/12/05	KWG0506003	
Acetone	ND	U	17	12	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethene	ND	U	4.2	0.81	1	04/12/05	04/12/05	KWG0506003	
Methyl Acetate	ND	U	4.2	0.85	1	04/12/05	04/12/05	KWG0506003	
Carbon Disulfide	ND	U	4.2	1.8	1	04/12/05	04/12/05	KWG0506003	
Diisopropyl Ether	ND	U	8.4	0.39	1	04/12/05	04/12/05	KWG0506003	
Methylene Chloride	ND	U	8.4	2.9	1	04/12/05	04/12/05	KWG0506003	
Methyl tert-Butyl Ether	ND	U	4.2	0.75	1	04/12/05	04/12/05	KWG0506003	
trans-1,2-Dichloroethene	ND	U	4.2	0.84	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethane	ND	U	4.2	0.89	1	04/12/05	04/12/05	KWG0506003	
2-Butanone (MEK)	ND	U	17	14	1	04/12/05	04/12/05	KWG0506003	
cis-1,2-Dichloroethene	ND	U	4.2	0.95	1	04/12/05	04/12/05	KWG0506003	
Chloroform	ND	U	4.2	0.65	1	04/12/05	04/12/05	KWG0506003	
1,1,1-Trichloroethane (TCA)	ND	U	4.2	0.65	1	04/12/05	04/12/05	KWG0506003	
Cyclohexane	ND	U	4.2	0.77	1	04/12/05	04/12/05	KWG0506003	US
Carbon Tetrachloride	ND	U	4.2	0.69	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloroethane (EDC)	ND	U	4.2	0.77	1	04/12/05	04/12/05	KWG0506003	
Benzene	ND	U	4.2	0.90	1	04/12/05	04/12/05	KWG0506003	
Trichloroethene (TCE)	ND	U	4.2	0.32	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloropropane	ND	U	4.2	0.83	1	04/12/05	04/12/05	KWG0506003	
Bromodichloromethane	ND	U	4.2	0.61	1	04/12/05	04/12/05	KWG0506003	
Methylcyclohexane	ND	U	4.2	0.81	1	04/12/05	04/12/05	KWG0506003	US
2-Hexanone	ND	U	17	7.0	1	04/12/05	04/12/05	KWG0506003	
cis-1,3-Dichloropropene	ND	U	4.2	0.87	1	04/12/05	04/12/05	KWG0506003	
Toluene	ND	U	4.2	0.96	1	04/12/05	04/12/05	KWG0506003	
trans-1,3-Dichloropropene	ND	U	4.2	0.69	1	04/12/05	04/12/05	KWG0506003	
1,1,2-Trichloroethane	ND	U	4.2	0.79	1	04/12/05	04/12/05	KWG0506003	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R4-SB04-0-0.5
 Lab Code: K2502497-011
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	17	6.3	1	04/12/05	04/12/05	KWG0506003	
Tetrachloroethene (PCE)	ND	U	4.2	0.36	1	04/12/05	04/12/05	KWG0506003	
Dibromochloromethane	ND	U	4.2	0.69	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromoethane (EDB)	ND	U	17	0.90	1	04/12/05	04/12/05	KWG0506003	
Chlorobenzene	ND	U	4.2	0.80	1	04/12/05	04/12/05	KWG0506003	
Ethylbenzene	ND	U	4.2	0.65	1	04/12/05	04/12/05	KWG0506003	
m,p-Xylenes	ND	U	4.2	1.8	1	04/12/05	04/12/05	KWG0506003	
o-Xylene	ND	U	4.2	0.79	1	04/12/05	04/12/05	KWG0506003	
Styrene	ND	U	4.2	0.84	1	04/12/05	04/12/05	KWG0506003	
Bromoform	ND	U	4.2	0.88	1	04/12/05	04/12/05	KWG0506003	
Isopropylbenzene	ND	U	17	0.78	1	04/12/05	04/12/05	KWG0506003	
1,1,2,2-Tetrachloroethane	ND	U	4.2	0.85	1	04/12/05	04/12/05	KWG0506003	
1,3-Dichlorobenzene	ND	U	4.2	0.81	1	04/12/05	04/12/05	KWG0506003	
1,4-Dichlorobenzene	ND	U	4.2	0.94	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichlorobenzene	ND	U	4.2	0.75	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromo-3-chloropropane	ND	U	17	0.97	1	04/12/05	04/12/05	KWG0506003	
1,2,4-Trichlorobenzene	ND	U	17	0.88	1	04/12/05	04/12/05	KWG0506003	
Naphthalene	ND	U	17	1.1	1	04/12/05	04/12/05	KWG0506003	
Bromochloromethane	ND	U	4.2	1.2	1	04/12/05	04/12/05	KWG0506003	
1,2,3-Trichlorobenzene	ND	U	17	1.1	1	04/12/05	04/12/05	KWG0506003	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	70-119	04/12/05	Acceptable
Toluene-d8	108	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	105	66-122	04/12/05	Acceptable

Comments: _____

Handwritten signature and date: 6/17/05

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R4-SB04-4-5
 Lab Code: K2502497-012
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	8.6	1.3	1	04/12/05	04/12/05	KWG0506003	
Chloromethane	ND	U	8.6	1.8	1	04/12/05	04/12/05	KWG0506003	
Vinyl Chloride	ND	U	8.6	1.1	1	04/12/05	04/12/05	KWG0506003	
Bromomethane	ND	U	8.6	1.4	1	04/12/05	04/12/05	KWG0506003	
Chloroethane	ND	U	8.6	1.4	1	04/12/05	04/12/05	KWG0506003	
Trichlorofluoromethane	ND	U	8.6	1.3	1	04/12/05	04/12/05	KWG0506003	
Trichlorotrifluoroethane	ND	U	8.6	1.3	1	04/12/05	04/12/05	KWG0506003	
Acetone	ND	U	35	18	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethene	ND	U	8.6	1.3	1	04/12/05	04/12/05	KWG0506003	
Methyl Acetate	ND	U	8.6	1.3	1	04/12/05	04/12/05	KWG0506003	
Carbon Disulfide	ND	U	8.6	2.6	1	04/12/05	04/12/05	KWG0506003	
Diisopropyl Ether	ND	U	18	0.59	1	04/12/05	04/12/05	KWG0506003	
Methylene Chloride	ND	U	18	4.3	1	04/12/05	04/12/05	KWG0506003	
Methyl tert-Butyl Ether	ND	U	8.6	1.2	1	04/12/05	04/12/05	KWG0506003	
trans-1,2-Dichloroethene	ND	U	8.6	1.3	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethane	ND	U	8.6	1.4	1	04/12/05	04/12/05	KWG0506003	
2-Butanone (MEK)	ND	U	35	21	1	04/12/05	04/12/05	KWG0506003	
cis-1,2-Dichloroethene	ND	U	8.6	1.5	1	04/12/05	04/12/05	KWG0506003	
Chloroform	ND	U	8.6	0.99	1	04/12/05	04/12/05	KWG0506003	
1,1,1-Trichloroethane (TCA)	ND	U	8.6	0.99	1	04/12/05	04/12/05	KWG0506003	
Cyclohexane	ND	U	8.6	1.2	1	04/12/05	04/12/05	KWG0506003	
Carbon Tetrachloride	ND	U	8.6	1.1	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloroethane (EDC)	ND	U	8.6	1.2	1	04/12/05	04/12/05	KWG0506003	
Benzene	ND	U	8.6	1.4	1	04/12/05	04/12/05	KWG0506003	
Trichloroethene (TCE)	ND	U	8.6	0.49	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloropropane	ND	U	8.6	1.3	1	04/12/05	04/12/05	KWG0506003	
Bromodichloromethane	ND	U	8.6	0.92	1	04/12/05	04/12/05	KWG0506003	
Methylcyclohexane	ND	U	8.6	1.3	1	04/12/05	04/12/05	KWG0506003	
2-Hexanone	ND	U	35	11	1	04/12/05	04/12/05	KWG0506003	
cis-1,3-Dichloropropene	ND	U	8.6	1.4	1	04/12/05	04/12/05	KWG0506003	
Toluene	ND	U	8.6	1.5	1	04/12/05	04/12/05	KWG0506003	
trans-1,3-Dichloropropene	ND	U	8.6	1.1	1	04/12/05	04/12/05	KWG0506003	
1,1,2-Trichloroethane	ND	U	8.6	1.2	1	04/12/05	04/12/05	KWG0506003	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R4-SB04-4-5
 Lab Code: K2502497-012
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	35	9.5	1	04/12/05	04/12/05	KWG0506003	
Tetrachloroethene (PCE)	ND	U	8.6	0.54	1	04/12/05	04/12/05	KWG0506003	
Dibromochloromethane	ND	U	8.6	1.1	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromoethane (EDB)	ND	U	35	1.4	1	04/12/05	04/12/05	KWG0506003	
Chlorobenzene	ND	U	8.6	1.3	1	04/12/05	04/12/05	KWG0506003	
Ethylbenzene	ND	U	8.6	0.99	1	04/12/05	04/12/05	KWG0506003	
m,p-Xylenes	ND	U	8.6	2.6	1	04/12/05	04/12/05	KWG0506003	
o-Xylene	ND	U	8.6	1.2	1	04/12/05	04/12/05	KWG0506003	
Styrene	ND	U	8.6	1.3	1	04/12/05	04/12/05	KWG0506003	
Bromoform	ND	U	8.6	1.4	1	04/12/05	04/12/05	KWG0506003	
Isopropylbenzene	ND	U	35	1.2	1	04/12/05	04/12/05	KWG0506003	
1,1,2,2-Tetrachloroethane	ND	U	8.6	1.3	1	04/12/05	04/12/05	KWG0506003	
1,3-Dichlorobenzene	ND	U	8.6	1.3	1	04/12/05	04/12/05	KWG0506003	
1,4-Dichlorobenzene	ND	U	8.6	1.5	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichlorobenzene	ND	U	8.6	1.2	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromo-3-chloropropane	ND	U	35	1.5	1	04/12/05	04/12/05	KWG0506003	
1,2,4-Trichlorobenzene	ND	U	35	1.4	1	04/12/05	04/12/05	KWG0506003	
Naphthalene	ND	U	35	1.6	1	04/12/05	04/12/05	KWG0506003	
Bromochloromethane	ND	U	8.6	1.7	1	04/12/05	04/12/05	KWG0506003	
1,2,3-Trichlorobenzene	ND	U	35	1.6	1	04/12/05	04/12/05	KWG0506003	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	107	70-119	04/12/05	Acceptable
Toluene-d8	106	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	103	66-122	04/12/05	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R5-SB04-0-0.5
 Lab Code: K2502497-013
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	4.5	0.79	1	04/12/05	04/12/05	KWG0506003	
Chloromethane	ND	U	4.5	1.2	1	04/12/05	04/12/05	KWG0506003	
Vinyl Chloride	ND	U	4.5	0.70	1	04/12/05	04/12/05	KWG0506003	
Bromomethane	ND	U	4.5	0.91	1	04/12/05	04/12/05	KWG0506003	
Chloroethane	ND	U	4.5	0.88	1	04/12/05	04/12/05	KWG0506003	
Trichlorofluoromethane	ND	U	4.5	0.83	1	04/12/05	04/12/05	KWG0506003	
Trichlorotrifluoroethane	ND	U	4.5	0.84	1	04/12/05	04/12/05	KWG0506003	
Acetone	ND	U	18	12	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethene	ND	U	4.5	0.80	1	04/12/05	04/12/05	KWG0506003	
Methyl Acetate	ND	U	4.5	0.84	1	04/12/05	04/12/05	KWG0506003	
Carbon Disulfide	ND	U	4.5	1.7	1	04/12/05	04/12/05	KWG0506003	
Diisopropyl Ether	ND	U	8.9	0.39	1	04/12/05	04/12/05	KWG0506003	
Methylene Chloride	ND	U	8.9	2.9	1	04/12/05	04/12/05	KWG0506003	
Methyl tert-Butyl Ether	ND	U	4.5	0.74	1	04/12/05	04/12/05	KWG0506003	
trans-1,2-Dichloroethene	ND	U	4.5	0.83	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethane	ND	U	4.5	0.88	1	04/12/05	04/12/05	KWG0506003	
2-Butanone (MEK)	ND	U	18	14	1	04/12/05	04/12/05	KWG0506003	
cis-1,2-Dichloroethene	ND	U	4.5	0.94	1	04/12/05	04/12/05	KWG0506003	
Chloroform	ND	U	4.5	0.65	1	04/12/05	04/12/05	KWG0506003	
1,1,1-Trichloroethane (TCA)	ND	U	4.5	0.65	1	04/12/05	04/12/05	KWG0506003	
Cyclohexane	ND	U	4.5	0.76	1	04/12/05	04/12/05	KWG0506003	
Carbon Tetrachloride	ND	U	4.5	0.68	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloroethane (EDC)	ND	U	4.5	0.76	1	04/12/05	04/12/05	KWG0506003	
Benzene	ND	U	4.5	0.89	1	04/12/05	04/12/05	KWG0506003	
Trichloroethene (TCE)	ND	U	4.5	0.32	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloropropane	ND	U	4.5	0.82	1	04/12/05	04/12/05	KWG0506003	
Bromodichloromethane	ND	U	4.5	0.60	1	04/12/05	04/12/05	KWG0506003	
Methylcyclohexane	ND	U	4.5	0.80	1	04/12/05	04/12/05	KWG0506003	
2-Hexanone	ND	U	18	6.9	1	04/12/05	04/12/05	KWG0506003	
cis-1,3-Dichloropropene	ND	U	4.5	0.86	1	04/12/05	04/12/05	KWG0506003	
Toluene	ND	U	4.5	0.95	1	04/12/05	04/12/05	KWG0506003	
trans-1,3-Dichloropropene	ND	U	4.5	0.68	1	04/12/05	04/12/05	KWG0506003	
1,1,2-Trichloroethane	ND	U	4.5	0.78	1	04/12/05	04/12/05	KWG0506003	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R5-SB04-0-0.5
 Lab Code: K2502497-013
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	18	6.2	1	04/12/05	04/12/05	KWG0506003	
Tetrachloroethene (PCE)	ND	U	4.5	0.35	1	04/12/05	04/12/05	KWG0506003	
Dibromochloromethane	ND	U	4.5	0.68	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromoethane (EDB)	ND	U	18	0.89	1	04/12/05	04/12/05	KWG0506003	
Chlorobenzene	ND	U	4.5	0.79	1	04/12/05	04/12/05	KWG0506003	
Ethylbenzene	ND	U	4.5	0.65	1	04/12/05	04/12/05	KWG0506003	
m,p-Xylenes	ND	U	4.5	1.7	1	04/12/05	04/12/05	KWG0506003	
o-Xylene	ND	U	4.5	0.78	1	04/12/05	04/12/05	KWG0506003	
Styrene	ND	U	4.5	0.83	1	04/12/05	04/12/05	KWG0506003	
Bromoform	ND	U	4.5	0.87	1	04/12/05	04/12/05	KWG0506003	
Isopropylbenzene	ND	U	18	0.77	1	04/12/05	04/12/05	KWG0506003	
1,1,2,2-Tetrachloroethane	ND	U	4.5	0.84	1	04/12/05	04/12/05	KWG0506003	
1,3-Dichlorobenzene	ND	U	4.5	0.80	1	04/12/05	04/12/05	KWG0506003	
1,4-Dichlorobenzene	ND	U	4.5	0.93	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichlorobenzene	ND	U	4.5	0.74	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromo-3-chloropropane	ND	U	18	0.96	1	04/12/05	04/12/05	KWG0506003	
1,2,4-Trichlorobenzene	ND	U	18	0.87	1	04/12/05	04/12/05	KWG0506003	
Naphthalene	ND	U	18	1.1	1	04/12/05	04/12/05	KWG0506003	
Bromochloromethane	ND	U	4.5	1.2	1	04/12/05	04/12/05	KWG0506003	
1,2,3-Trichlorobenzene	ND	U	18	1.1	1	04/12/05	04/12/05	KWG0506003	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	105	70-119	04/12/05	Acceptable
Toluene-d8	108	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	103	66-122	04/12/05	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R5-SB04-5-6
 Lab Code: K2502497-014
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	8.3	1.2	1	04/12/05	04/12/05	KWG0506003	
Chloromethane	ND	U	8.3	1.7	1	04/12/05	04/12/05	KWG0506003	
Vinyl Chloride	ND	U	8.3	1.1	1	04/12/05	04/12/05	KWG0506003	
Bromomethane	ND	U	8.3	1.4	1	04/12/05	04/12/05	KWG0506003	
Chloroethane	ND	U	8.3	1.4	1	04/12/05	04/12/05	KWG0506003	
Trichlorofluoromethane	ND	U	8.3	1.3	1	04/12/05	04/12/05	KWG0506003	
Trichlorotrifluoroethane	ND	U	8.3	1.3	1	04/12/05	04/12/05	KWG0506003	
Acetone	23	J	33	18	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethene	ND	U	8.3	1.3	1	04/12/05	04/12/05	KWG0506003	
Methyl Acetate	ND	U	8.3	1.3	1	04/12/05	04/12/05	KWG0506003	
Carbon Disulfide	ND	U	8.3	2.6	1	04/12/05	04/12/05	KWG0506003	
Diisopropyl Ether	ND	U	17	0.59	1	04/12/05	04/12/05	KWG0506003	
Methylene Chloride	ND	U	17	4.3	1	04/12/05	04/12/05	KWG0506003	
Methyl tert-Butyl Ether	ND	U	8.3	1.2	1	04/12/05	04/12/05	KWG0506003	
trans-1,2-Dichloroethene	ND	U	8.3	1.3	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethane	ND	U	8.3	1.4	1	04/12/05	04/12/05	KWG0506003	
2-Butanone (MEK)	ND	U	33	21	1	04/12/05	04/12/05	KWG0506003	
cis-1,2-Dichloroethene	ND	U	8.3	1.5	1	04/12/05	04/12/05	KWG0506003	
Chloroform	ND	U	8.3	0.98	1	04/12/05	04/12/05	KWG0506003	
1,1,1-Trichloroethane (TCA)	ND	U	8.3	0.98	1	04/12/05	04/12/05	KWG0506003	
Cyclohexane	ND	U	8.3	1.2	1	04/12/05	04/12/05	KWG0506003	
Carbon Tetrachloride	ND	U	8.3	1.1	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloroethane (EDC)	ND	U	8.3	1.2	1	04/12/05	04/12/05	KWG0506003	
Benzene	ND	U	8.3	1.4	1	04/12/05	04/12/05	KWG0506003	
Trichloroethene (TCE)	ND	U	8.3	0.48	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloropropane	ND	U	8.3	1.3	1	04/12/05	04/12/05	KWG0506003	
Bromodichloromethane	ND	U	8.3	0.91	1	04/12/05	04/12/05	KWG0506003	
Methylcyclohexane	ND	U	8.3	1.3	1	04/12/05	04/12/05	KWG0506003	
2-Hexanone	ND	U	33	11	1	04/12/05	04/12/05	KWG0506003	
cis-1,3-Dichloropropene	ND	U	8.3	1.3	1	04/12/05	04/12/05	KWG0506003	
Toluene	ND	U	8.3	1.5	1	04/12/05	04/12/05	KWG0506003	
trans-1,3-Dichloropropene	ND	U	8.3	1.1	1	04/12/05	04/12/05	KWG0506003	
1,1,2-Trichloroethane	ND	U	8.3	1.2	1	04/12/05	04/12/05	KWG0506003	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R5-SB04-5-6
 Lab Code: K2502497-014
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	33	9.5	1	04/12/05	04/12/05	KWG0506003	
Tetrachloroethene (PCE)	ND	U	8.3	0.53	1	04/12/05	04/12/05	KWG0506003	
Dibromochloromethane	ND	U	8.3	1.1	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromoethane (EDB)	ND	U	33	1.4	1	04/12/05	04/12/05	KWG0506003	
Chlorobenzene	ND	U	8.3	1.2	1	04/12/05	04/12/05	KWG0506003	
Ethylbenzene	ND	U	8.3	0.98	1	04/12/05	04/12/05	KWG0506003	
m,p-Xylenes	ND	U	8.3	2.6	1	04/12/05	04/12/05	KWG0506003	
o-Xylene	ND	U	8.3	1.2	1	04/12/05	04/12/05	KWG0506003	
Styrene	ND	U	8.3	1.3	1	04/12/05	04/12/05	KWG0506003	
Bromoform	ND	U	8.3	1.4	1	04/12/05	04/12/05	KWG0506003	
Isopropylbenzene	ND	U	33	1.2	1	04/12/05	04/12/05	KWG0506003	
1,1,2,2-Tetrachloroethane	ND	U	8.3	1.3	1	04/12/05	04/12/05	KWG0506003	
1,3-Dichlorobenzene	ND	U	8.3	1.3	1	04/12/05	04/12/05	KWG0506003	
1,4-Dichlorobenzene	ND	U	8.3	1.5	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichlorobenzene	ND	U	8.3	1.2	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromo-3-chloropropane	ND	U	33	1.5	1	04/12/05	04/12/05	KWG0506003	
1,2,4-Trichlorobenzene	ND	U	33	1.4	1	04/12/05	04/12/05	KWG0506003	
Naphthalene	ND	U	33	1.6	1	04/12/05	04/12/05	KWG0506003	
Bromochloromethane	ND	U	8.3	1.7	1	04/12/05	04/12/05	KWG0506003	
1,2,3-Trichlorobenzene	ND	U	33	1.6	1	04/12/05	04/12/05	KWG0506003	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	107	70-119	04/12/05	Acceptable
Toluene-d8	105	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	105	66-122	04/12/05	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R5-SB02-0-0.5
 Lab Code: K2502497-015
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND U	4.8	0.80	1	04/12/05	04/12/05	KWG0506003	
Chloromethane	ND U	4.8	1.2	1	04/12/05	04/12/05	KWG0506003	
Vinyl Chloride	ND U	4.8	0.71	1	04/12/05	04/12/05	KWG0506003	
Bromomethane	ND U <i>UJ</i>	4.8	0.91	1	04/12/05	04/12/05	KWG0506003	
Chloroethane	ND U	4.8	0.89	1	04/12/05	04/12/05	KWG0506003	
Trichlorofluoromethane	ND U	4.8	0.83	1	04/12/05	04/12/05	KWG0506003	
Trichlorotrifluoroethane	ND U	4.8	0.85	1	04/12/05	04/12/05	KWG0506003	
Acetone	ND U	19	12	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethene	ND U	4.8	0.81	1	04/12/05	04/12/05	KWG0506003	
Methyl Acetate	ND U	4.8	0.85	1	04/12/05	04/12/05	KWG0506003	
Carbon Disulfide	ND U	4.8	1.8	1	04/12/05	04/12/05	KWG0506003	
Diisopropyl Ether	ND U	9.5	0.39	1	04/12/05	04/12/05	KWG0506003	
Methylene Chloride	ND U	9.5	2.9	1	04/12/05	04/12/05	KWG0506003	
Methyl tert-Butyl Ether	ND U	4.8	0.74	1	04/12/05	04/12/05	KWG0506003	
trans-1,2-Dichloroethene	ND U	4.8	0.83	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethane	ND U	4.8	0.89	1	04/12/05	04/12/05	KWG0506003	
2-Butanone (MEK)	ND U	19	14	1	04/12/05	04/12/05	KWG0506003	
cis-1,2-Dichloroethene	ND U	4.8	0.95	1	04/12/05	04/12/05	KWG0506003	
Chloroform	ND U	4.8	0.65	1	04/12/05	04/12/05	KWG0506003	
1,1,1-Trichloroethane (TCA)	ND U	4.8	0.65	1	04/12/05	04/12/05	KWG0506003	
Cyclohexane	ND U <i>UJ</i>	4.8	0.77	1	04/12/05	04/12/05	KWG0506003	
Carbon Tetrachloride	ND U	4.8	0.69	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloroethane (EDC)	ND U	4.8	0.77	1	04/12/05	04/12/05	KWG0506003	
Benzene	ND U	4.8	0.90	1	04/12/05	04/12/05	KWG0506003	
Trichloroethene (TCE)	ND U	4.8	0.32	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloropropane	ND U	4.8	0.82	1	04/12/05	04/12/05	KWG0506003	
Bromodichloromethane	ND U	4.8	0.61	1	04/12/05	04/12/05	KWG0506003	
Methylcyclohexane	ND U <i>UJ</i>	4.8	0.81	1	04/12/05	04/12/05	KWG0506003	
2-Hexanone	ND U	19	7.0	1	04/12/05	04/12/05	KWG0506003	
cis-1,3-Dichloropropene	ND U	4.8	0.87	1	04/12/05	04/12/05	KWG0506003	
Toluene	ND U	4.8	0.96	1	04/12/05	04/12/05	KWG0506003	
trans-1,3-Dichloropropene	ND U	4.8	0.69	1	04/12/05	04/12/05	KWG0506003	
1,1,2-Trichloroethane	ND U	4.8	0.79	1	04/12/05	04/12/05	KWG0506003	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R5-SB02-0-0.5
 Lab Code: K2502497-015
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	19	6.3	1	04/12/05	04/12/05	KWG0506003	
Tetrachloroethene (PCE)	ND	U	4.8	0.36	1	04/12/05	04/12/05	KWG0506003	
Dibromochloromethane	ND	U	4.8	0.69	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromoethane (EDB)	ND	U	19	0.90	1	04/12/05	04/12/05	KWG0506003	
Chlorobenzene	ND	U	4.8	0.80	1	04/12/05	04/12/05	KWG0506003	
Ethylbenzene	ND	U	4.8	0.65	1	04/12/05	04/12/05	KWG0506003	
m,p-Xylenes	ND	U	4.8	1.8	1	04/12/05	04/12/05	KWG0506003	
o-Xylene	ND	U	4.8	0.79	1	04/12/05	04/12/05	KWG0506003	
Styrene	ND	U	4.8	0.83	1	04/12/05	04/12/05	KWG0506003	
Bromoform	ND	U	4.8	0.88	1	04/12/05	04/12/05	KWG0506003	
Isopropylbenzene	ND	U	19	0.78	1	04/12/05	04/12/05	KWG0506003	
1,1,2,2-Tetrachloroethane	ND	U	4.8	0.85	1	04/12/05	04/12/05	KWG0506003	
1,3-Dichlorobenzene	ND	U	4.8	0.81	1	04/12/05	04/12/05	KWG0506003	
1,4-Dichlorobenzene	ND	U	4.8	0.94	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichlorobenzene	ND	U	4.8	0.74	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromo-3-chloropropane	ND	U	19	0.97	1	04/12/05	04/12/05	KWG0506003	
1,2,4-Trichlorobenzene	ND	U	19	0.88	1	04/12/05	04/12/05	KWG0506003	
Naphthalene	ND	U	19	1.1	1	04/12/05	04/12/05	KWG0506003	
Bromochloromethane	ND	U	4.8	1.2	1	04/12/05	04/12/05	KWG0506003	
1,2,3-Trichlorobenzene	ND	U	19	1.1	1	04/12/05	04/12/05	KWG0506003	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	105	70-119	04/12/05	Acceptable
Toluene-d8	110	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	110	66-122	04/12/05	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R5-SB02-3-4
 Lab Code: K2502497-016
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	10	1.4	1	04/12/05	04/12/05	KWG0506003	
Chloromethane	ND	U	10	2.0	1	04/12/05	04/12/05	KWG0506003	
Vinyl Chloride	ND	U	10	1.3	1	04/12/05	04/12/05	KWG0506003	
Bromomethane	ND	U	10	1.6	1	04/12/05	04/12/05	KWG0506003	
Chloroethane	ND	U	10	1.6	1	04/12/05	04/12/05	KWG0506003	
Trichlorofluoromethane	ND	U	10	1.5	1	04/12/05	04/12/05	KWG0506003	
Trichlorotrifluoroethane	ND	U	10	1.5	1	04/12/05	04/12/05	KWG0506003	
Acetone	ND	U	40	20	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethene	ND	U	10	1.5	1	04/12/05	04/12/05	KWG0506003	
Methyl Acetate	ND	U	10	1.5	1	04/12/05	04/12/05	KWG0506003	
Carbon Disulfide	ND	U	10	3.0	1	04/12/05	04/12/05	KWG0506003	
Diisopropyl Ether	ND	U	20	0.68	1	04/12/05	04/12/05	KWG0506003	
Methylene Chloride	ND	U	20	5.0	1	04/12/05	04/12/05	KWG0506003	
Methyl tert-Butyl Ether	ND	U	10	1.3	1	04/12/05	04/12/05	KWG0506003	
trans-1,2-Dichloroethene	ND	U	10	1.5	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethane	ND	U	10	1.6	1	04/12/05	04/12/05	KWG0506003	
2-Butanone (MEK)	ND	U	40	24	1	04/12/05	04/12/05	KWG0506003	
cis-1,2-Dichloroethene	ND	U	10	1.7	1	04/12/05	04/12/05	KWG0506003	
Chloroform	ND	U	10	1.2	1	04/12/05	04/12/05	KWG0506003	
1,1,1-Trichloroethane (TCA)	ND	U	10	1.2	1	04/12/05	04/12/05	KWG0506003	
Cyclohexane	ND	U	10	1.4	1	04/12/05	04/12/05	KWG0506003	
Carbon Tetrachloride	ND	U	10	1.2	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloroethane (EDC)	ND	U	10	1.4	1	04/12/05	04/12/05	KWG0506003	
Benzene	ND	U	10	1.6	1	04/12/05	04/12/05	KWG0506003	
Trichloroethene (TCE)	ND	U	10	0.56	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloropropane	ND	U	10	1.5	1	04/12/05	04/12/05	KWG0506003	
Bromodichloromethane	ND	U	10	1.1	1	04/12/05	04/12/05	KWG0506003	
Methylcyclohexane	ND	U	10	1.5	1	04/12/05	04/12/05	KWG0506003	
2-Hexanone	ND	U	40	13	1	04/12/05	04/12/05	KWG0506003	
cis-1,3-Dichloropropene	ND	U	10	1.6	1	04/12/05	04/12/05	KWG0506003	
Toluene	ND	U	10	1.7	1	04/12/05	04/12/05	KWG0506003	
trans-1,3-Dichloropropene	ND	U	10	1.2	1	04/12/05	04/12/05	KWG0506003	
1,1,2-Trichloroethane	ND	U	10	1.4	1	04/12/05	04/12/05	KWG0506003	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R5-SB02-3-4
 Lab Code: K2502497-016
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	40	11	1	04/12/05	04/12/05	KWG0506003	
Tetrachloroethene (PCE)	ND	U	10	0.62	1	04/12/05	04/12/05	KWG0506003	
Dibromochloromethane	ND	U	10	1.2	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromoethane (EDB)	ND	U	40	1.6	1	04/12/05	04/12/05	KWG0506003	
Chlorobenzene	ND	U	10	1.4	1	04/12/05	04/12/05	KWG0506003	
Ethylbenzene	ND	U	10	1.2	1	04/12/05	04/12/05	KWG0506003	
m,p-Xylenes	ND	U	10	3.0	1	04/12/05	04/12/05	KWG0506003	
o-Xylene	ND	U	10	1.4	1	04/12/05	04/12/05	KWG0506003	
Styrene	ND	U	10	1.5	1	04/12/05	04/12/05	KWG0506003	
Bromoform	ND	U	10	1.6	1	04/12/05	04/12/05	KWG0506003	
Isopropylbenzene	ND	U	40	1.4	1	04/12/05	04/12/05	KWG0506003	
1,1,2,2-Tetrachloroethane	ND	U	10	1.5	1	04/12/05	04/12/05	KWG0506003	
1,3-Dichlorobenzene	ND	U	10	1.5	1	04/12/05	04/12/05	KWG0506003	
1,4-Dichlorobenzene	ND	U	10	1.7	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichlorobenzene	ND	U	10	1.3	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromo-3-chloropropane	ND	U	40	1.7	1	04/12/05	04/12/05	KWG0506003	
1,2,4-Trichlorobenzene	ND	U	40	1.6	1	04/12/05	04/12/05	KWG0506003	
Naphthalene	ND	U	40	1.8	1	04/12/05	04/12/05	KWG0506003	
Bromochloromethane	ND	U	10	2.0	1	04/12/05	04/12/05	KWG0506003	
1,2,3-Trichlorobenzene	ND	U	40	1.8	1	04/12/05	04/12/05	KWG0506003	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	70-119	04/12/05	Acceptable
Toluene-d8	109	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	107	66-122	04/12/05	Acceptable

Comments: _____

6/1/05

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R5-SB01-0.0.5
 Lab Code: K2502497-017
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	6.2	0.87	1	04/12/05	04/12/05	KWG0506003	
Chloromethane	ND	U	6.2	1.3	1	04/12/05	04/12/05	KWG0506003	
Vinyl Chloride	ND	U	6.2	0.77	1	04/12/05	04/12/05	KWG0506003	
Bromomethane	ND	U	6.2	1.0	1	04/12/05	04/12/05	KWG0506003	
Chloroethane	ND	U	6.2	0.97	1	04/12/05	04/12/05	KWG0506003	
Trichlorofluoromethane	ND	U	6.2	0.91	1	04/12/05	04/12/05	KWG0506003	
Trichlorotrifluoroethane	ND	U	6.2	0.92	1	04/12/05	04/12/05	KWG0506003	
Acetone	44		25	13	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethene	ND	U	6.2	0.88	1	04/12/05	04/12/05	KWG0506003	
Methyl Acetate	ND	U	6.2	0.92	1	04/12/05	04/12/05	KWG0506003	
Carbon Disulfide	ND	U	6.2	1.9	1	04/12/05	04/12/05	KWG0506003	
Diisopropyl Ether	ND	U	13	0.43	1	04/12/05	04/12/05	KWG0506003	
Methylene Chloride	ND	U	13	3.1	1	04/12/05	04/12/05	KWG0506003	
Methyl tert-Butyl Ether	ND	U	6.2	0.81	1	04/12/05	04/12/05	KWG0506003	
trans-1,2-Dichloroethene	ND	U	6.2	0.91	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethane	ND	U	6.2	0.97	1	04/12/05	04/12/05	KWG0506003	
2-Butanone (MEK)	ND	U	25	15	1	04/12/05	04/12/05	KWG0506003	
cis-1,2-Dichloroethene	ND	U	6.2	1.1	1	04/12/05	04/12/05	KWG0506003	
Chloroform	ND	U	6.2	0.71	1	04/12/05	04/12/05	KWG0506003	
1,1,1-Trichloroethane (TCA)	ND	U	6.2	0.71	1	04/12/05	04/12/05	KWG0506003	
Cyclohexane	ND	U	6.2	0.83	1	04/12/05	04/12/05	KWG0506003	
Carbon Tetrachloride	ND	U	6.2	0.75	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloroethane (EDC)	ND	U	6.2	0.83	1	04/12/05	04/12/05	KWG0506003	
Benzene	ND	U	6.2	0.98	1	04/12/05	04/12/05	KWG0506003	
Trichloroethene (TCE)	ND	U	6.2	0.35	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloropropane	ND	U	6.2	0.90	1	04/12/05	04/12/05	KWG0506003	
Bromodichloromethane	ND	U	6.2	0.66	1	04/12/05	04/12/05	KWG0506003	
Methylcyclohexane	ND	U	6.2	0.88	1	04/12/05	04/12/05	KWG0506003	
2-Hexanone	ND	U	25	7.6	1	04/12/05	04/12/05	KWG0506003	
cis-1,3-Dichloropropene	ND	U	6.2	0.95	1	04/12/05	04/12/05	KWG0506003	
Toluene	ND	U	6.2	1.1	1	04/12/05	04/12/05	KWG0506003	
trans-1,3-Dichloropropene	ND	U	6.2	0.75	1	04/12/05	04/12/05	KWG0506003	
1,1,2-Trichloroethane	ND	U	6.2	0.86	1	04/12/05	04/12/05	KWG0506003	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R5-SB01-0.0.5
 Lab Code: K2502497-017
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	25	6.9	1	04/12/05	04/12/05	KWG0506003	
Tetrachloroethene (PCE)	ND	U	6.2	0.39	1	04/12/05	04/12/05	KWG0506003	
Dibromochloromethane	ND	U	6.2	0.75	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromoethane (EDB)	ND	U	25	0.98	1	04/12/05	04/12/05	KWG0506003	
Chlorobenzene	ND	U	6.2	0.87	1	04/12/05	04/12/05	KWG0506003	
Ethylbenzene	ND	U	6.2	0.71	1	04/12/05	04/12/05	KWG0506003	
m,p-Xylenes	2.0	J	6.2	1.9	1	04/12/05	04/12/05	KWG0506003	
o-Xylene	1.1	J	6.2	0.86	1	04/12/05	04/12/05	KWG0506003	
Styrene	ND	U	6.2	0.91	1	04/12/05	04/12/05	KWG0506003	
Bromoform	ND	U	6.2	0.96	1	04/12/05	04/12/05	KWG0506003	
Isopropylbenzene	ND	U	25	0.85	1	04/12/05	04/12/05	KWG0506003	
1,1,2,2-Tetrachloroethane	ND	U	6.2	0.92	1	04/12/05	04/12/05	KWG0506003	
1,3-Dichlorobenzene	ND	U	6.2	0.88	1	04/12/05	04/12/05	KWG0506003	
1,4-Dichlorobenzene	ND	U	6.2	1.1	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichlorobenzene	ND	U	6.2	0.81	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromo-3-chloropropane	ND	U	25	1.1	1	04/12/05	04/12/05	KWG0506003	
1,2,4-Trichlorobenzene	ND	U	25	0.96	1	04/12/05	04/12/05	KWG0506003	
Naphthalene	ND	U	25	1.2	1	04/12/05	04/12/05	KWG0506003	
Bromochloromethane	ND	U	6.2	1.3	1	04/12/05	04/12/05	KWG0506003	
1,2,3-Trichlorobenzene	ND	U	25	1.2	1	04/12/05	04/12/05	KWG0506003	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	107	70-119	04/12/05	Acceptable
Toluene-d8	108	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	110	66-122	04/12/05	Acceptable

Comments: _____

[Signature]
 6/17/05

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R5-SB03-0.0.5
 Lab Code: K2502497-018
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	4.5	0.77	1	04/12/05	04/12/05	KWG0506003	
Chloromethane	ND	U	4.5	1.1	1	04/12/05	04/12/05	KWG0506003	
Vinyl Chloride	ND	U	4.5	0.68	1	04/12/05	04/12/05	KWG0506003	
Bromomethane	ND	U	4.5	0.88	1	04/12/05	04/12/05	KWG0506003	
Chloroethane	ND	U	4.5	0.85	1	04/12/05	04/12/05	KWG0506003	
Trichlorofluoromethane	ND	U	4.5	0.80	1	04/12/05	04/12/05	KWG0506003	
Trichlorotrifluoroethane	ND	U	4.5	0.81	1	04/12/05	04/12/05	KWG0506003	
Acetone	ND	U	18	11	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethene	ND	U	4.5	0.78	1	04/12/05	04/12/05	KWG0506003	
Methyl Acetate	ND	U	4.5	0.81	1	04/12/05	04/12/05	KWG0506003	
Carbon Disulfide	ND	U	4.5	1.7	1	04/12/05	04/12/05	KWG0506003	
Diisopropyl Ether	ND	U	8.9	0.37	1	04/12/05	04/12/05	KWG0506003	
Methylene Chloride	ND	U	8.9	2.8	1	04/12/05	04/12/05	KWG0506003	
Methyl tert-Butyl Ether	ND	U	4.5	0.71	1	04/12/05	04/12/05	KWG0506003	
trans-1,2-Dichloroethene	ND	U	4.5	0.80	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethane	ND	U	4.5	0.85	1	04/12/05	04/12/05	KWG0506003	
2-Butanone (MEK)	ND	U	18	14	1	04/12/05	04/12/05	KWG0506003	
cis-1,2-Dichloroethene	ND	U	4.5	0.91	1	04/12/05	04/12/05	KWG0506003	
Chloroform	ND	U	4.5	0.63	1	04/12/05	04/12/05	KWG0506003	
1,1,1-Trichloroethane (TCA)	ND	U	4.5	0.63	1	04/12/05	04/12/05	KWG0506003	
Cyclohexane	ND	U	4.5	0.73	1	04/12/05	04/12/05	KWG0506003	
Carbon Tetrachloride	ND	U	4.5	0.66	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloroethane (EDC)	ND	U	4.5	0.73	1	04/12/05	04/12/05	KWG0506003	
Benzene	ND	U	4.5	0.86	1	04/12/05	04/12/05	KWG0506003	
Trichloroethene (TCE)	ND	U	4.5	0.31	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloropropane	ND	U	4.5	0.79	1	04/12/05	04/12/05	KWG0506003	
Bromodichloromethane	ND	U	4.5	0.58	1	04/12/05	04/12/05	KWG0506003	
Methylcyclohexane	ND	U	4.5	0.78	1	04/12/05	04/12/05	KWG0506003	
2-Hexanone	ND	U	18	6.7	1	04/12/05	04/12/05	KWG0506003	
cis-1,3-Dichloropropene	ND	U	4.5	0.83	1	04/12/05	04/12/05	KWG0506003	
Toluene	ND	U	4.5	0.92	1	04/12/05	04/12/05	KWG0506003	
trans-1,3-Dichloropropene	ND	U	4.5	0.66	1	04/12/05	04/12/05	KWG0506003	
1,1,2-Trichloroethane	ND	U	4.5	0.76	1	04/12/05	04/12/05	KWG0506003	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R5-SB03-0.0.5
 Lab Code: K2502497-018
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	18	6.0	1	04/12/05	04/12/05	KWG0506003	
Tetrachloroethene (PCE)	ND	U	4.5	0.34	1	04/12/05	04/12/05	KWG0506003	
Dibromochloromethane	ND	U	4.5	0.66	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromoethane (EDB)	ND	U	18	0.86	1	04/12/05	04/12/05	KWG0506003	
Chlorobenzene	ND	U	4.5	0.77	1	04/12/05	04/12/05	KWG0506003	
Ethylbenzene	ND	U	4.5	0.63	1	04/12/05	04/12/05	KWG0506003	
m,p-Xylenes	ND	U	4.5	1.7	1	04/12/05	04/12/05	KWG0506003	
o-Xylene	ND	U	4.5	0.76	1	04/12/05	04/12/05	KWG0506003	
Styrene	ND	U	4.5	0.80	1	04/12/05	04/12/05	KWG0506003	
Bromoform	ND	U	4.5	0.84	1	04/12/05	04/12/05	KWG0506003	
Isopropylbenzene	ND	U	18	0.74	1	04/12/05	04/12/05	KWG0506003	
1,1,2,2-Tetrachloroethane	ND	U	4.5	0.81	1	04/12/05	04/12/05	KWG0506003	
1,3-Dichlorobenzene	ND	U	4.5	0.78	1	04/12/05	04/12/05	KWG0506003	
1,4-Dichlorobenzene	ND	U	4.5	0.90	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichlorobenzene	ND	U	4.5	0.71	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromo-3-chloropropane	ND	U	18	0.93	1	04/12/05	04/12/05	KWG0506003	
1,2,4-Trichlorobenzene	ND	U	18	0.84	1	04/12/05	04/12/05	KWG0506003	
Naphthalene	ND	U	18	0.97	1	04/12/05	04/12/05	KWG0506003	
Bromochloromethane	ND	U	4.5	1.1	1	04/12/05	04/12/05	KWG0506003	
1,2,3-Trichlorobenzene	ND	U	18	0.98	1	04/12/05	04/12/05	KWG0506003	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	70-119	04/12/05	Acceptable
Toluene-d8	110	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	108	66-122	04/12/05	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R2-SB03-0.0.5
 Lab Code: K2502497-019
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	8.5	1.2	1	04/12/05	04/12/05	KWG0506003	
Chloromethane	ND	U	8.5	1.7	1	04/12/05	04/12/05	KWG0506003	
Vinyl Chloride	ND	U	8.5	1.1	1	04/12/05	04/12/05	KWG0506003	
Bromomethane	ND	U	8.5	1.4	1	04/12/05	04/12/05	KWG0506003	
Chloroethane	ND	U	8.5	1.4	1	04/12/05	04/12/05	KWG0506003	
Trichlorofluoromethane	ND	U	8.5	1.3	1	04/12/05	04/12/05	KWG0506003	
Trichlorotrifluoroethane	ND	U	8.5	1.3	1	04/12/05	04/12/05	KWG0506003	
Acetone	31	J	34	17	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethene	ND	U	8.5	1.2	1	04/12/05	04/12/05	KWG0506003	
Methyl Acetate	ND	U	8.5	1.3	1	04/12/05	04/12/05	KWG0506003	
Carbon Disulfide	ND	U	8.5	2.6	1	04/12/05	04/12/05	KWG0506003	
Diisopropyl Ether	ND	U	17	0.58	1	04/12/05	04/12/05	KWG0506003	
Methylene Chloride	ND	U	17	4.3	1	04/12/05	04/12/05	KWG0506003	
Methyl tert-Butyl Ether	ND	U	8.5	1.1	1	04/12/05	04/12/05	KWG0506003	
trans-1,2-Dichloroethene	ND	U	8.5	1.3	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethane	ND	U	8.5	1.4	1	04/12/05	04/12/05	KWG0506003	
2-Butanone (MEK)	ND	U	34	21	1	04/12/05	04/12/05	KWG0506003	
cis-1,2-Dichloroethene	ND	U	8.5	1.5	1	04/12/05	04/12/05	KWG0506003	
Chloroform	ND	U	8.5	0.97	1	04/12/05	04/12/05	KWG0506003	
1,1,1-Trichloroethane (TCA)	ND	U	8.5	0.97	1	04/12/05	04/12/05	KWG0506003	
Cyclohexane	ND	U	8.5	1.2	1	04/12/05	04/12/05	KWG0506003	
Carbon Tetrachloride	ND	U	8.5	1.1	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloroethane (EDC)	ND	U	8.5	1.2	1	04/12/05	04/12/05	KWG0506003	
Benzene	ND	U	8.5	1.4	1	04/12/05	04/12/05	KWG0506003	
Trichloroethene (TCE)	ND	U	8.5	0.48	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloropropane	ND	U	8.5	1.3	1	04/12/05	04/12/05	KWG0506003	
Bromodichloromethane	ND	U	8.5	0.90	1	04/12/05	04/12/05	KWG0506003	
Methylcyclohexane	ND	U	8.5	1.2	1	04/12/05	04/12/05	KWG0506003	
2-Hexanone	ND	U	34	11	1	04/12/05	04/12/05	KWG0506003	
cis-1,3-Dichloropropene	ND	U	8.5	1.3	1	04/12/05	04/12/05	KWG0506003	
Toluene	ND	U	8.5	1.5	1	04/12/05	04/12/05	KWG0506003	
trans-1,3-Dichloropropene	ND	U	8.5	1.1	1	04/12/05	04/12/05	KWG0506003	
1,1,2-Trichloroethane	ND	U	8.5	1.2	1	04/12/05	04/12/05	KWG0506003	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R2-SB03-0.0.5
 Lab Code: K2502497-019
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	34	9.3	1	04/12/05	04/12/05	KWG0506003	
Tetrachloroethene (PCE)	ND	U	8.5	0.53	1	04/12/05	04/12/05	KWG0506003	
Dibromochloromethane	ND	U	8.5	1.1	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromoethane (EDB)	ND	U	34	1.4	1	04/12/05	04/12/05	KWG0506003	
Chlorobenzene	ND	U	8.5	1.2	1	04/12/05	04/12/05	KWG0506003	
Ethylbenzene	ND	U	8.5	0.97	1	04/12/05	04/12/05	KWG0506003	
m,p-Xylenes	ND	U	8.5	2.6	1	04/12/05	04/12/05	KWG0506003	
o-Xylene	ND	U	8.5	1.2	1	04/12/05	04/12/05	KWG0506003	
Styrene	ND	U	8.5	1.3	1	04/12/05	04/12/05	KWG0506003	
Bromoform	ND	U	8.5	1.3	1	04/12/05	04/12/05	KWG0506003	
Isopropylbenzene	ND	U	34	1.2	1	04/12/05	04/12/05	KWG0506003	
1,1,2,2-Tetrachloroethane	ND	U	8.5	1.3	1	04/12/05	04/12/05	KWG0506003	
1,3-Dichlorobenzene	ND	U	8.5	1.2	1	04/12/05	04/12/05	KWG0506003	
1,4-Dichlorobenzene	ND	U	8.5	1.4	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichlorobenzene	ND	U	8.5	1.1	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromo-3-chloropropane	ND	U	34	1.5	1	04/12/05	04/12/05	KWG0506003	
1,2,4-Trichlorobenzene	ND	U	34	1.3	1	04/12/05	04/12/05	KWG0506003	
Naphthalene	ND	U	34	1.6	1	04/12/05	04/12/05	KWG0506003	
Bromochloromethane	ND	U	8.5	1.7	1	04/12/05	04/12/05	KWG0506003	
1,2,3-Trichlorobenzene	ND	U	34	1.6	1	04/12/05	04/12/05	KWG0506003	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	107	70-119	04/12/05	Acceptable
Toluene-d8	107	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	104	66-122	04/12/05	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R2-SB02-0.0.5
 Lab Code: K2502497-020
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	8.9	1.3	1	04/12/05	04/12/05	KWG0506003	
Chloromethane	ND	U	8.9	1.8	1	04/12/05	04/12/05	KWG0506003	
Vinyl Chloride	ND	U	8.9	1.1	1	04/12/05	04/12/05	KWG0506003	
Bromomethane	ND	U	8.9	1.5	1	04/12/05	04/12/05	KWG0506003	
Chloroethane	ND	U	8.9	1.4	1	04/12/05	04/12/05	KWG0506003	
Trichlorofluoromethane	ND	U	8.9	1.3	1	04/12/05	04/12/05	KWG0506003	
Trichlorotrifluoroethane	ND	U	8.9	1.4	1	04/12/05	04/12/05	KWG0506003	
Acetone	27	J	36	18	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethene	ND	U	8.9	1.3	1	04/12/05	04/12/05	KWG0506003	
Methyl Acetate	ND	U	8.9	1.4	1	04/12/05	04/12/05	KWG0506003	
Carbon Disulfide	ND	U	8.9	2.7	1	04/12/05	04/12/05	KWG0506003	
Diisopropyl Ether	ND	U	18	0.61	1	04/12/05	04/12/05	KWG0506003	
Methylene Chloride	ND	U	18	4.5	1	04/12/05	04/12/05	KWG0506003	
Methyl tert-Butyl Ether	ND	U	8.9	1.2	1	04/12/05	04/12/05	KWG0506003	
trans-1,2-Dichloroethene	ND	U	8.9	1.3	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethane	ND	U	8.9	1.4	1	04/12/05	04/12/05	KWG0506003	
2-Butanone (MEK)	ND	U	36	22	1	04/12/05	04/12/05	KWG0506003	
cis-1,2-Dichloroethene	ND	U	8.9	1.5	1	04/12/05	04/12/05	KWG0506003	
Chloroform	ND	U	8.9	1.1	1	04/12/05	04/12/05	KWG0506003	
1,1,1-Trichloroethane (TCA)	ND	U	8.9	1.1	1	04/12/05	04/12/05	KWG0506003	
Cyclohexane	ND	U	8.9	1.2	1	04/12/05	04/12/05	KWG0506003	
Carbon Tetrachloride	ND	U	8.9	1.1	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloroethane (EDC)	ND	U	8.9	1.2	1	04/12/05	04/12/05	KWG0506003	
Benzene	ND	U	8.9	1.4	1	04/12/05	04/12/05	KWG0506003	
Trichloroethene (TCE)	ND	U	8.9	0.50	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloropropane	ND	U	8.9	1.3	1	04/12/05	04/12/05	KWG0506003	
Bromodichloromethane	ND	U	8.9	0.94	1	04/12/05	04/12/05	KWG0506003	
Methylcyclohexane	ND	U	8.9	1.3	1	04/12/05	04/12/05	KWG0506003	
2-Hexanone	ND	U	36	11	1	04/12/05	04/12/05	KWG0506003	
cis-1,3-Dichloropropene	ND	U	8.9	1.4	1	04/12/05	04/12/05	KWG0506003	
Toluene	ND	U	8.9	1.5	1	04/12/05	04/12/05	KWG0506003	
trans-1,3-Dichloropropene	ND	U	8.9	1.1	1	04/12/05	04/12/05	KWG0506003	
1,1,2-Trichloroethane	ND	U	8.9	1.3	1	04/12/05	04/12/05	KWG0506003	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502497
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R2-SB02-0.0.5
 Lab Code: K2502497-020
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	36	9.8	1	04/12/05	04/12/05	KWG0506003	
Tetrachloroethene (PCE)	ND	U	8.9	0.55	1	04/12/05	04/12/05	KWG0506003	
Dibromochloromethane	ND	U	8.9	1.1	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromoethane (EDB)	ND	U	36	1.4	1	04/12/05	04/12/05	KWG0506003	
Chlorobenzene	ND	U	8.9	1.3	1	04/12/05	04/12/05	KWG0506003	
Ethylbenzene	ND	U	8.9	1.1	1	04/12/05	04/12/05	KWG0506003	
m,p-Xylenes	ND	U	8.9	2.7	1	04/12/05	04/12/05	KWG0506003	
o-Xylene	ND	U	8.9	1.3	1	04/12/05	04/12/05	KWG0506003	
Styrene	ND	U	8.9	1.3	1	04/12/05	04/12/05	KWG0506003	
Bromoform	ND	U	8.9	1.4	1	04/12/05	04/12/05	KWG0506003	
Isopropylbenzene	ND	U	36	1.3	1	04/12/05	04/12/05	KWG0506003	
1,1,2,2-Tetrachloroethane	ND	U	8.9	1.4	1	04/12/05	04/12/05	KWG0506003	
1,3-Dichlorobenzene	ND	U	8.9	1.3	1	04/12/05	04/12/05	KWG0506003	
1,4-Dichlorobenzene	ND	U	8.9	1.5	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichlorobenzene	ND	U	8.9	1.2	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromo-3-chloropropane	ND	U	36	1.6	1	04/12/05	04/12/05	KWG0506003	
1,2,4-Trichlorobenzene	ND	U	36	1.4	1	04/12/05	04/12/05	KWG0506003	
Naphthalene	ND	U	36	1.6	1	04/12/05	04/12/05	KWG0506003	
Bromochloromethane	ND	U	8.9	1.8	1	04/12/05	04/12/05	KWG0506003	
1,2,3-Trichlorobenzene	ND	U	36	1.6	1	04/12/05	04/12/05	KWG0506003	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	107	70-119	04/12/05	Acceptable
Toluene-d8	108	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	103	66-122	04/12/05	Acceptable

Comments: _____

LDC #: 13575A1

VALIDATION COMPLETENESS WORKSHEET

SDG #: K2502497

Level III

Laboratory: Columbia Analytical Services

Date: 4/6/05

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 4/6/05
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	W	70 RSD ≤ 30/15. SPCCS
IV.	Continuing calibration	W	70 D ≤ 20. 1CV ≤ 25 % ↓
V.	Blanks	W	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	2 CS / D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	N	
XII.	Compound quantitation/CRQLs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	ND	D = 3 + 4 . 8 + TO63-R1-SB01-0-0.5 (K) SD499) ^{dup}
XVII.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

M5017

1/	TO63-R2-SB04-0-0.5	11	2/	TO63-R4-SB04-0-0.5	21	TO63-R1-SB01-0-0.5MS	31/	KW0505901-3
2/	TO63-R2-SB04-3-4	12	2/	TO63-R4-SB04-4-5	22	TO63-R1-SB01-0-0.5MSD	32/	KW0506003-3
3/	TO63-R2-SB01-0-0.5	13	2/	TO63-R5-SB04-0-0.5	23		33/	KW0506051-3
4/	TO63-R2-SB01-0-0.5 Dup	14	2/	TO63-R5-SB04-5-6	24		34	
5/	TO63-R2-SB01-1-2	15	2/	TO63-R5-SB02-0-0.5	25		35	
6/	TO63-R1-SB04-0-0.5	16	2/	TO63-R5-SB02-3-4	26		36	
7/	TO63-R1-SB04-4-5	17	2/	TO63-R5-SB01-0-0.5	27		37	
8/	TO63-R1-SB01-0-0.5	18	2/	TO63-R5-SB03-0-0.5	28		38	
9/	TO63-R1-SB03-0-0.5	19	2/	TO63-R2-SB03-0-0.5	29		39	
10/	TO63-R1-SB03-4-5	20	2/	TO63-R2-SB02-0-0.5	30		40	

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC. 1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl chloride**	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform*	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethane**	BB. 1,1,2,2-Tetrachloroethane*	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane*	CC. Toluene**	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene*	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Methyl ethyl ketone
K. Chloroform**	EE. Ethylbenzene**	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Ethyl ether
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN. Benzyl chloride
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO. <i>cyclohexane</i>
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP. <i>Methyl cyclohexane</i>
O. Carbon tetrachloride	I. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane**	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	VVVV.

* = System performance check compounds (SPCC) for RRF; ** = Calibration check compounds (CCC) for %RSD.

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Did the laboratory perform a 5 point calibration prior to sample analysis?

Were percent relative standard deviations (%RSD) and relative response	Y	N	N/A
	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Was a curve fit used for evaluation? If yes, what was the acceptance criteria used for evaluation?

Y/N	N/A
-----	-----

Did the initial calibration meet the acceptance criteria?

Y N N/A

Were all %RSDs and RRFs within the validation criteria of ≤ 30 %RSD and ≥ 0.05 RRF?

INICAL.15B

VALIDATION FINDINGS WORKSHEET

Blanks

Page: 1 of 1
 Reviewer: [Signature]
 2nd Reviewer: [Signature]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- Y N N/A Was a method blank associated with every sample in this SDG?
- Y N N/A Was a method blank analyzed at least once every 12 hours for each matrix and concentration?
- Y N N/A Was there contamination in the method blanks? if yes, please see the qualifications below.

Blank analysis date: 4/11/05

Conc. units: $\mu\text{g/g}$

Associated Samples: 1-8

Compound	Blank ID	Sample Identification									
Methylene chloride	1505901-3	2									
Acetone	10	63/U									
B	0.80										
CRQL											

Blank analysis date: 4/12/05

Conc. units: $\mu\text{g/g}$

Associated Samples: 9-20

Compound	Blank ID	Sample Identification									
Methylene chloride	1506003-3										
Acetone	1.1										
B											
CRQL											

All results were qualified using the criteria stated below except those circled.

Note: Common contaminants such as Methylene chloride, Acetone, 2-Butanone, Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Ballfields Parcels at DoDHF Novato, CA

Collection Date: April 6, 2005

LDC Report Date: June 15, 2005

Matrix: Soil

Parameters: Volatiles

Validation Level: NFESC Level III

Laboratory: Columbia Analytical Services, Inc.

Sample Delivery Group (SDG): K2502499

Sample Identification

TO63-R1-SB02-0-0.5

TO63-R1-SB01-0-0.5Dup

Introduction

This data review covers 2 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

The review follows the Final Sampling and Analysis Plan for Preliminary Assessment/Site Investigation of Ballfields Parcels at DoDHF Novato, California, (March 23, 2005) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs) with the following exceptions:

Date	Compound	%RSD	Associated Samples	Flag	A or P
4/11/05	Bromomethane Cyclohexane Methylcyclohexane	15.7 15.8 15.5	All samples in SDG K2502499	J (all detects) UJ (all non-detects)	A

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were greater than or equal to 0.05 as required.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

The percent difference (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Analysis Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
KWG0506003-3	4/12/05	Bromomethane	1.1 ug/Kg	All samples in SDG K2502499

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples TO63-R1-SB01-0-0.5Dup and TO63-R1-SB01-0-0.5 (from SDG K2502497) were identified as field duplicates. No volatiles were detected in any of these samples.

XVII. Field Blanks

No field blanks were identified in this SDG.

Ballfields Parcels at DoDHF Novato, CA
Volatiles - Data Qualification Summary - SDG K2502499

SDG	Sample	Compound	Flag	A or P	Reason
K2502499	TO63-R1-SB02-0-0.5 TO63-R1-SB01-0-0.5Dup	Bromomethane Cyclohexane Methylcyclohexane	J (all detects) UJ (all non-detects)	A	Initial calibration (%RSD)

Ballfields Parcels at DoDHF Novato, CA
Volatiles - Laboratory Blank Data Qualification Summary - SDG K2502499

No Sample Data Qualified in this SDG

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502499
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: T063-R1-SB02-0-0.5
 Lab Code: K2502499-011
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	4.9	0.82	1	04/12/05	04/12/05	KWG0506003	
Chloromethane	ND	U	4.9	1.2	1	04/12/05	04/12/05	KWG0506003	
Vinyl Chloride	ND	U	4.9	0.73	1	04/12/05	04/12/05	KWG0506003	
Bromomethane	ND	U	4.9	0.94	1	04/12/05	04/12/05	KWG0506003	
Chloroethane	ND	U	4.9	0.91	1	04/12/05	04/12/05	KWG0506003	
Trichlorofluoromethane	ND	U	4.9	0.86	1	04/12/05	04/12/05	KWG0506003	
Trichlorotrifluoroethane	ND	U	4.9	0.87	1	04/12/05	04/12/05	KWG0506003	
Acetone	ND	U	20	12	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethene	ND	U	4.9	0.83	1	04/12/05	04/12/05	KWG0506003	
Methyl Acetate	ND	U	4.9	0.87	1	04/12/05	04/12/05	KWG0506003	
Carbon Disulfide	ND	U	4.9	1.8	1	04/12/05	04/12/05	KWG0506003	
Diisopropyl Ether	ND	U	9.7	0.40	1	04/12/05	04/12/05	KWG0506003	
Methylene Chloride	ND	U	9.7	3.0	1	04/12/05	04/12/05	KWG0506003	
Methyl tert-Butyl Ether	ND	U	4.9	0.76	1	04/12/05	04/12/05	KWG0506003	
trans-1,2-Dichloroethene	ND	U	4.9	0.86	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethane	ND	U	4.9	0.91	1	04/12/05	04/12/05	KWG0506003	
2-Butanone (MEK)	ND	U	20	14	1	04/12/05	04/12/05	KWG0506003	
cis-1,2-Dichloroethene	ND	U	4.9	0.97	1	04/12/05	04/12/05	KWG0506003	
Chloroform	ND	U	4.9	0.67	1	04/12/05	04/12/05	KWG0506003	
1,1,1-Trichloroethane (TCA)	ND	U	4.9	0.67	1	04/12/05	04/12/05	KWG0506003	
Cyclohexane	ND	U	4.9	0.79	1	04/12/05	04/12/05	KWG0506003	
Carbon Tetrachloride	ND	U	4.9	0.70	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloroethane (EDC)	ND	U	4.9	0.79	1	04/12/05	04/12/05	KWG0506003	
Benzene	ND	U	4.9	0.93	1	04/12/05	04/12/05	KWG0506003	
Trichloroethene (TCE)	ND	U	4.9	0.33	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloropropane	ND	U	4.9	0.84	1	04/12/05	04/12/05	KWG0506003	
Bromodichloromethane	ND	U	4.9	0.62	1	04/12/05	04/12/05	KWG0506003	
Methylcyclohexane	ND	U	4.9	0.83	1	04/12/05	04/12/05	KWG0506003	
2-Hexanone	ND	U	20	7.2	1	04/12/05	04/12/05	KWG0506003	
cis-1,3-Dichloropropene	ND	U	4.9	0.89	1	04/12/05	04/12/05	KWG0506003	
Toluene	ND	U	4.9	0.98	1	04/12/05	04/12/05	KWG0506003	
trans-1,3-Dichloropropene	ND	U	4.9	0.70	1	04/12/05	04/12/05	KWG0506003	
1,1,2-Trichloroethane	ND	U	4.9	0.81	1	04/12/05	04/12/05	KWG0506003	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502499
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: T063-R1-SB02-0-0.5
 Lab Code: K2502499-011
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	20	6.5	1	04/12/05	04/12/05	KWG0506003	
Tetrachloroethene (PCE)	ND	U	4.9	0.37	1	04/12/05	04/12/05	KWG0506003	
Dibromochloromethane	ND	U	4.9	0.70	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromoethane (EDB)	ND	U	20	0.93	1	04/12/05	04/12/05	KWG0506003	
Chlorobenzene	ND	U	4.9	0.82	1	04/12/05	04/12/05	KWG0506003	
Ethylbenzene	ND	U	4.9	0.67	1	04/12/05	04/12/05	KWG0506003	
m,p-Xylenes	ND	U	4.9	1.8	1	04/12/05	04/12/05	KWG0506003	
o-Xylene	ND	U	4.9	0.81	1	04/12/05	04/12/05	KWG0506003	
Styrene	ND	U	4.9	0.86	1	04/12/05	04/12/05	KWG0506003	
Bromoform	ND	U	4.9	0.90	1	04/12/05	04/12/05	KWG0506003	
Isopropylbenzene	ND	U	20	0.80	1	04/12/05	04/12/05	KWG0506003	
1,1,2,2-Tetrachloroethane	ND	U	4.9	0.87	1	04/12/05	04/12/05	KWG0506003	
1,3-Dichlorobenzene	ND	U	4.9	0.83	1	04/12/05	04/12/05	KWG0506003	
1,4-Dichlorobenzene	ND	U	4.9	0.96	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichlorobenzene	ND	U	4.9	0.76	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromo-3-chloropropane	ND	U	20	1.0	1	04/12/05	04/12/05	KWG0506003	
1,2,4-Trichlorobenzene	ND	U	20	0.90	1	04/12/05	04/12/05	KWG0506003	
Naphthalene	ND	U	20	1.1	1	04/12/05	04/12/05	KWG0506003	
Bromochloromethane	ND	U	4.9	1.2	1	04/12/05	04/12/05	KWG0506003	
1,2,3-Trichlorobenzene	ND	U	20	1.1	1	04/12/05	04/12/05	KWG0506003	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	109	70-119	04/12/05	Acceptable
Toluene-d8	104	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	106	66-122	04/12/05	Acceptable

Comments:

Handwritten signature
 4/17/05

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502499
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: T063-R1-SB01-0-0.5 DUP
 Lab Code: K2502499-012
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	6.0	0.89	1	04/12/05	04/12/05	KWG0506003	
Chloromethane	ND	U	6.0	1.3	1	04/12/05	04/12/05	KWG0506003	
Vinyl Chloride	ND	U	6.0	0.79	1	04/12/05	04/12/05	KWG0506003	
Bromomethane	ND	U	6.0	1.1	1	04/12/05	04/12/05	KWG0506003	
Chloroethane	ND	U	6.0	0.99	1	04/12/05	04/12/05	KWG0506003	
Trichlorofluoromethane	ND	U	6.0	0.93	1	04/12/05	04/12/05	KWG0506003	
Trichlorotrifluoroethane	ND	U	6.0	0.94	1	04/12/05	04/12/05	KWG0506003	
Acetone	ND	U	24	13	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethene	ND	U	6.0	0.90	1	04/12/05	04/12/05	KWG0506003	
Methyl Acetate	ND	U	6.0	0.94	1	04/12/05	04/12/05	KWG0506003	
Carbon Disulfide	ND	U	6.0	1.9	1	04/12/05	04/12/05	KWG0506003	
Diisopropyl Ether	ND	U	12	0.43	1	04/12/05	04/12/05	KWG0506003	
Methylene Chloride	ND	U	12	3.2	1	04/12/05	04/12/05	KWG0506003	
Methyl tert-Butyl Ether	ND	U	6.0	0.83	1	04/12/05	04/12/05	KWG0506003	
trans-1,2-Dichloroethene	ND	U	6.0	0.93	1	04/12/05	04/12/05	KWG0506003	
1,1-Dichloroethane	ND	U	6.0	0.99	1	04/12/05	04/12/05	KWG0506003	
2-Butanone (MEK)	ND	U	24	16	1	04/12/05	04/12/05	KWG0506003	
cis-1,2-Dichloroethene	ND	U	6.0	1.1	1	04/12/05	04/12/05	KWG0506003	
Chloroform	ND	U	6.0	0.73	1	04/12/05	04/12/05	KWG0506003	
1,1,1-Trichloroethane (TCA)	ND	U	6.0	0.73	1	04/12/05	04/12/05	KWG0506003	
Cyclohexane	ND	U	6.0	0.85	1	04/12/05	04/12/05	KWG0506003	
Carbon Tetrachloride	ND	U	6.0	0.76	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloroethane (EDC)	ND	U	6.0	0.85	1	04/12/05	04/12/05	KWG0506003	
Benzene	ND	U	6.0	1.0	1	04/12/05	04/12/05	KWG0506003	
Trichloroethene (TCE)	ND	U	6.0	0.36	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichloropropane	ND	U	6.0	0.92	1	04/12/05	04/12/05	KWG0506003	
Bromodichloromethane	ND	U	6.0	0.68	1	04/12/05	04/12/05	KWG0506003	
Methylcyclohexane	ND	U	6.0	0.90	1	04/12/05	04/12/05	KWG0506003	
2-Hexanone	ND	U	24	7.8	1	04/12/05	04/12/05	KWG0506003	
cis-1,3-Dichloropropene	ND	U	6.0	0.97	1	04/12/05	04/12/05	KWG0506003	
Toluene	ND	U	6.0	1.1	1	04/12/05	04/12/05	KWG0506003	
trans-1,3-Dichloropropene	ND	U	6.0	0.76	1	04/12/05	04/12/05	KWG0506003	
1,1,2-Trichloroethane	ND	U	6.0	0.88	1	04/12/05	04/12/05	KWG0506003	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502499
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: T063-R1-SB01-0-0.5 DUP
 Lab Code: K2502499-012
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	24	7.0	1	04/12/05	04/12/05	KWG0506003	
Tetrachloroethene (PCE)	ND	U	6.0	0.40	1	04/12/05	04/12/05	KWG0506003	
Dibromochloromethane	ND	U	6.0	0.76	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromoethane (EDB)	ND	U	24	1.0	1	04/12/05	04/12/05	KWG0506003	
Chlorobenzene	ND	U	6.0	0.89	1	04/12/05	04/12/05	KWG0506003	
Ethylbenzene	ND	U	6.0	0.73	1	04/12/05	04/12/05	KWG0506003	
m,p-Xylenes	ND	U	6.0	1.9	1	04/12/05	04/12/05	KWG0506003	
o-Xylene	ND	U	6.0	0.88	1	04/12/05	04/12/05	KWG0506003	
Styrene	ND	U	6.0	0.93	1	04/12/05	04/12/05	KWG0506003	
Bromoform	ND	U	6.0	0.98	1	04/12/05	04/12/05	KWG0506003	
Isopropylbenzene	ND	U	24	0.86	1	04/12/05	04/12/05	KWG0506003	
1,1,2,2-Tetrachloroethane	ND	U	6.0	0.94	1	04/12/05	04/12/05	KWG0506003	
1,3-Dichlorobenzene	ND	U	6.0	0.90	1	04/12/05	04/12/05	KWG0506003	
1,4-Dichlorobenzene	ND	U	6.0	1.1	1	04/12/05	04/12/05	KWG0506003	
1,2-Dichlorobenzene	ND	U	6.0	0.83	1	04/12/05	04/12/05	KWG0506003	
1,2-Dibromo-3-chloropropane	ND	U	24	1.1	1	04/12/05	04/12/05	KWG0506003	
1,2,4-Trichlorobenzene	ND	U	24	0.98	1	04/12/05	04/12/05	KWG0506003	
Naphthalene	ND	U	24	1.2	1	04/12/05	04/12/05	KWG0506003	
Bromochloromethane	ND	U	6.0	1.3	1	04/12/05	04/12/05	KWG0506003	
1,2,3-Trichlorobenzene	ND	U	24	1.2	1	04/12/05	04/12/05	KWG0506003	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	70-119	04/12/05	Acceptable
Toluene-d8	107	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	102	66-122	04/12/05	Acceptable

Comments: _____

LDC #: 13575B1

VALIDATION COMPLETENESS WORKSHEET

SDG #: K2502499

Level III

Laboratory: Columbia Analytical Services

Date: 6/13/05

Page: 1 of 1

Reviewer: [Signature]

2nd Reviewer: [Signature]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 4/6/05
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	W	70 RSD ≤ 30/15. Specs
IV.	Continuing calibration	A	70 D ≤ 20. 1CV ≤ 15/10 ↓
V.	Blanks	W	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified
VIII.	Laboratory control samples	A	LCS/3
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	N	
XII.	Compound quantitation/CRQLs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	ND	D=2+T063-R1-SB01-0-0.5 (K250497)
XVII.	Field blanks	N	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

Validated Samples:

1	TO63-R1-SB02-0-0.5	S	11	KW 50506003-3	21		31	
2	TO63-R1-SB01-0-0.5Dup	✓	12		22		32	
3			13		23		33	
4			14		24		34	
5			15		25		35	
6			16		26		36	
7			17		27		37	
8			18		28		38	
9			19		29		39	
10			20		30		40	

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC-1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl chloride**	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform*	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1,1-Dichloroethane**	BB. 1,1,2,2-Tetrachloroethane*	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane*	CC. Toluene**	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene*	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Methyl ethyl ketone
K. Chloroform**	EE. Ethylbenzene**	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Ethyl ether
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN. Benzyl chloride
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane**	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBB. tert-Amyl methyl ether	VVVV.

* = System performance check compounds (SPCC) for RRF ; ** = Calibration check compounds (CCC) for %RSD.

LDC #: 13575B1
SDG #: K2502499

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Did the laboratory perform a 5 point calibration prior to sample analysis?

Y N N/A

Question	Yes	No	N/A
Were percent relative standard deviations (%RSD) and relative response factors used to compare sample analyses?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A

Was a curve fit used for evaluation? If yes, what was the acceptance criteria used for evaluation?

Y N ~~N/A~~

Were all %RSDs and RRFs within the validation criteria of $\leq 30\%$ RSD and ≥ 0.05 RRF?

Y/N/D/N/A

[illegible]

VALIDATION FINDINGS WORKSHEET

Blanks

Page: 1 of 1
 Reviewer: ar
 2nd Reviewer: g

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- Y N N/A Was a method blank associated with every sample in this SDG?
 Y N N/A Was a method blank analyzed at least once every 12 hours for each matrix and concentration?
 Y N N/A Was there contamination in the method blanks? If yes, please see the qualifications below.

Blank analysis date: 4/13/05

Conc. units: ug/L Associated Samples: MM

Compound	Blank ID	Sample Identification									
1,1,1,2,2,2-hexachloroethane	1.1										
Methylene chloride											
Acetone											
<u>B</u>	<u>1.1</u>										
CRQL											

Blank analysis date: _____
 Conc. units: _____

Associated Samples: _____

Compound	Blank ID	Sample Identification									
Methylene chloride											
Acetone											
CRQL											

All results were qualified using the criteria stated below except those circled.

Note: Common contaminants such as Methylene chloride, Acetone, 2-Butanone, Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

LDC Report# 13575C1

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Ballfields Parcels at DoDHF Novato, CA
Collection Date: April 6, 2005
LDC Report Date: June 15, 2005
Matrix: Soil
Parameters: Volatiles
Validation Level: NFESC Level III & IV
Laboratory: Columbia Analytical Services, Inc.
Sample Delivery Group (SDG): K2502505

Sample Identification

TO63-R3-SB04-0-0.5
TO63-R3-SB04-2-3**
TO63-R3-SB01-0-0.5
TO63-R3-SB01-4-5
TO63-R3-SB02-0-0.5
TO63-R3-SB03-0-0.5**
TO63-R4-SB03-0-0.5
TO63-R4-SB03-3-4
TO63-R4-SB02-0-0.5
TO63-R4-SB01-0-0.5**

**Indicates sample underwent NFESC Level IV review

Introduction

This data review covers 10 soil samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

The review follows the Final Sampling and Analysis Plan for Preliminary Assessment/Site Investigation of Ballfields Parcels at DoDHF Novato, California, (March 23, 2005) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent NFESC Level IV review. NFESC Level III review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by NFESC Level III criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UU Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs) with the following exceptions:

Date	Compound	%RSD	Associated Samples	Flag	A or P
4/11/05	Bromomethane Cyclohexane Methylcyclohexane	15.7 15.8 15.5	All samples in SDG K2502505	J (all detects) UJ (all non-detects)	A

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were greater than or equal to 0.05 as required.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

The percent difference (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration RRF values for all system performance check compounds (SPCCs) were within method criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Analysis Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
KWG0505901-3	4/11/05	Acetone Bromomethane	10 ug/Kg 0.80 ug/Kg	All samples in SDG K2502505

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound TIC (RT in minutes)	Reported Concentration	Modified Final Concentration
TO63-R3-SB04-2-3**	Acetone	45 ug/Kg	50U ug/Kg
TO63-R3-SB01-0-0.5	Acetone	45 ug/Kg	15U ug/Kg

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which NFESC Level IV review was performed. Raw data were not evaluated for the samples reviewed by NFESC Level III criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria for samples on which NFESC Level IV review was performed. Raw data were not evaluated for the samples reviewed by NFESC Level III criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was within validation criteria for samples on which NFESC Level IV review was performed. Raw data were not evaluated for the samples reviewed by NFESC Level III criteria.

XV. Overall Assessment

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

Ballfields Parcels at DoDHF Novato, CA
Volatiles - Data Qualification Summary - SDG K2502505

SDG	Sample	Compound	Flag	A or P	Reason
K2502505	TO63-R3-SB04-0-0.5 TO63-R3-SB04-2-3** TO63-R3-SB01-0-0.5 TO63-R3-SB01-4-5 TO63-R3-SB02-0-0.5 TO63-R3-SB03-0-0.5** TO63-R4-SB03-0-0.5 TO63-R4-SB03-3-4 TO63-R4-SB02-0-0.5 TO63-R4-SB01-0-0.5**	Bromomethane Cyclohexane Methylcyclohexane	J (all detects) UJ (all non-detects)	A	Initial calibration (%RSD)

Ballfields Parcels at DoDHF Novato, CA
Volatiles - Laboratory Blank Data Qualification Summary - SDG K2502505

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P
K2502505	TO63-R3-SB04-2-3**	Acetone	50U ug/Kg	A
K2502505	TO63-R3-SB01-0-0.5	Acetone	45U ug/Kg	A

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502505
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R3-SB04-0-0.5
 Lab Code: K2502505-001
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND U	4.5	0.80	1	04/11/05	04/11/05	KWG0505901	
Chloromethane	ND U	4.5	1.2	1	04/11/05	04/11/05	KWG0505901	
Vinyl Chloride	ND U	4.5	0.71	1	04/11/05	04/11/05	KWG0505901	
Bromomethane	ND U <i>UJ</i>	4.5	0.91	1	04/11/05	04/11/05	KWG0505901	
Chloroethane	ND U	4.5	0.89	1	04/11/05	04/11/05	KWG0505901	
Trichlorofluoromethane	ND U	4.5	0.83	1	04/11/05	04/11/05	KWG0505901	
Trichlorotrifluoroethane	ND U	4.5	0.84	1	04/11/05	04/11/05	KWG0505901	
Acetone	ND U	18	12	1	04/11/05	04/11/05	KWG0505901	
1,1-Dichloroethene	ND U	4.5	0.81	1	04/11/05	04/11/05	KWG0505901	
Methyl Acetate	ND U	4.5	0.84	1	04/11/05	04/11/05	KWG0505901	
Carbon Disulfide	ND U	4.5	1.7	1	04/11/05	04/11/05	KWG0505901	
Diisopropyl Ether	ND U	8.9	0.39	1	04/11/05	04/11/05	KWG0505901	
Methylene Chloride	ND U	8.9	2.9	1	04/11/05	04/11/05	KWG0505901	
Methyl tert-Butyl Ether	ND U	4.5	0.74	1	04/11/05	04/11/05	KWG0505901	
trans-1,2-Dichloroethene	ND U	4.5	0.83	1	04/11/05	04/11/05	KWG0505901	
1,1-Dichloroethane	ND U	4.5	0.89	1	04/11/05	04/11/05	KWG0505901	
2-Butanone (MEK)	ND U	18	14	1	04/11/05	04/11/05	KWG0505901	
cis-1,2-Dichloroethene	ND U	4.5	0.94	1	04/11/05	04/11/05	KWG0505901	
Chloroform	ND U	4.5	0.65	1	04/11/05	04/11/05	KWG0505901	
1,1,1-Trichloroethane (TCA)	ND U	4.5	0.65	1	04/11/05	04/11/05	KWG0505901	
Cyclohexane	ND U <i>UJ</i>	4.5	0.76	1	04/11/05	04/11/05	KWG0505901	
Carbon Tetrachloride	ND U	4.5	0.68	1	04/11/05	04/11/05	KWG0505901	
1,2-Dichloroethane (EDC)	ND U	4.5	0.76	1	04/11/05	04/11/05	KWG0505901	
Benzene	ND U	4.5	0.90	1	04/11/05	04/11/05	KWG0505901	
Trichloroethene (TCE)	ND U	4.5	0.32	1	04/11/05	04/11/05	KWG0505901	
1,2-Dichloropropane	ND U	4.5	0.82	1	04/11/05	04/11/05	KWG0505901	
Bromodichloromethane	ND U	4.5	0.60	1	04/11/05	04/11/05	KWG0505901	
Methylcyclohexane	ND U <i>UJ</i>	4.5	0.81	1	04/11/05	04/11/05	KWG0505901	
2-Hexanone	ND U	18	6.9	1	04/11/05	04/11/05	KWG0505901	
cis-1,3-Dichloropropene	ND U	4.5	0.86	1	04/11/05	04/11/05	KWG0505901	
Toluene	ND U	4.5	0.95	1	04/11/05	04/11/05	KWG0505901	
trans-1,3-Dichloropropene	ND U	4.5	0.68	1	04/11/05	04/11/05	KWG0505901	
1,1,2-Trichloroethane	ND U	4.5	0.78	1	04/11/05	04/11/05	KWG0505901	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502505
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R3-SB04-0-0.5
 Lab Code: K2502505-001
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	18	6.3	1	04/11/05	04/11/05	KWG0505901	
Tetrachloroethene (PCE)	ND	U	4.5	0.36	1	04/11/05	04/11/05	KWG0505901	
Dibromochloromethane	ND	U	4.5	0.68	1	04/11/05	04/11/05	KWG0505901	
1,2-Dibromoethane (EDB)	ND	U	18	0.90	1	04/11/05	04/11/05	KWG0505901	
Chlorobenzene	ND	U	4.5	0.80	1	04/11/05	04/11/05	KWG0505901	
Ethylbenzene	ND	U	4.5	0.65	1	04/11/05	04/11/05	KWG0505901	
m,p-Xylenes	ND	U	4.5	1.7	1	04/11/05	04/11/05	KWG0505901	
o-Xylene	ND	U	4.5	0.78	1	04/11/05	04/11/05	KWG0505901	
Styrene	ND	U	4.5	0.83	1	04/11/05	04/11/05	KWG0505901	
Bromoform	ND	U	4.5	0.88	1	04/11/05	04/11/05	KWG0505901	
Isopropylbenzene	ND	U	18	0.77	1	04/11/05	04/11/05	KWG0505901	
1,1,2,2-Tetrachloroethane	ND	U	4.5	0.84	1	04/11/05	04/11/05	KWG0505901	
1,3-Dichlorobenzene	ND	U	4.5	0.81	1	04/11/05	04/11/05	KWG0505901	
1,4-Dichlorobenzene	ND	U	4.5	0.93	1	04/11/05	04/11/05	KWG0505901	
1,2-Dichlorobenzene	ND	U	4.5	0.74	1	04/11/05	04/11/05	KWG0505901	
1,2-Dibromo-3-chloropropane	ND	U	18	0.97	1	04/11/05	04/11/05	KWG0505901	
1,2,4-Trichlorobenzene	ND	U	18	0.88	1	04/11/05	04/11/05	KWG0505901	
Naphthalene	ND	U	18	1.1	1	04/11/05	04/11/05	KWG0505901	
Bromochloromethane	ND	U	4.5	1.2	1	04/11/05	04/11/05	KWG0505901	
1,2,3-Trichlorobenzene	ND	U	18	1.1	1	04/11/05	04/11/05	KWG0505901	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	107	70-119	04/11/05	Acceptable
Toluene-d8	111	72-121	04/11/05	Acceptable
4-Bromofluorobenzene	112	66-122	04/11/05	Acceptable

Comments:

6/19/05

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502505
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R3-SB04-2-3
 Lab Code: K2502505-002
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	13	1.8	1	04/11/05	04/11/05	KWG0505901	
Chloromethane	ND	U	13	2.5	1	04/11/05	04/11/05	KWG0505901	
Vinyl Chloride	ND	U	13	1.6	1	04/11/05	04/11/05	KWG0505901	
Bromomethane	ND	U	13	2.0	1	04/11/05	04/11/05	KWG0505901	
Chloroethane	ND	U	13	2.0	1	04/11/05	04/11/05	KWG0505901	
Trichlorofluoromethane	ND	U	13	1.9	1	04/11/05	04/11/05	KWG0505901	
Trichlorotrifluoroethane	ND	U	13	1.9	1	04/11/05	04/11/05	KWG0505901	
Acetone	45	J	50	25	1	04/11/05	04/11/05	KWG0505901	50K
1,1-Dichloroethene	ND	U	13	1.8	1	04/11/05	04/11/05	KWG0505901	
Methyl Acetate	ND	U	13	1.9	1	04/11/05	04/11/05	KWG0505901	
Carbon Disulfide	ND	U	13	3.8	1	04/11/05	04/11/05	KWG0505901	
Diisopropyl Ether	ND	U	25	0.85	1	04/11/05	04/11/05	KWG0505901	
Methylene Chloride	ND	U	25	6.2	1	04/11/05	04/11/05	KWG0505901	
Methyl tert-Butyl Ether	ND	U	13	1.7	1	04/11/05	04/11/05	KWG0505901	
trans-1,2-Dichloroethene	ND	U	13	1.9	1	04/11/05	04/11/05	KWG0505901	
1,1-Dichloroethane	ND	U	13	2.0	1	04/11/05	04/11/05	KWG0505901	
2-Butanone (MEK)	ND	U	50	30	1	04/11/05	04/11/05	KWG0505901	
cis-1,2-Dichloroethene	ND	U	13	2.1	1	04/11/05	04/11/05	KWG0505901	
Chloroform	ND	U	13	1.5	1	04/11/05	04/11/05	KWG0505901	
1,1,1-Trichloroethane (TCA)	ND	U	13	1.5	1	04/11/05	04/11/05	KWG0505901	
Cyclohexane	ND	U	13	1.7	1	04/11/05	04/11/05	KWG0505901	
Carbon Tetrachloride	ND	U	13	1.5	1	04/11/05	04/11/05	KWG0505901	
1,2-Dichloroethane (EDC)	ND	U	13	1.7	1	04/11/05	04/11/05	KWG0505901	
Benzene	ND	U	13	2.0	1	04/11/05	04/11/05	KWG0505901	
Trichloroethene (TCE)	ND	U	13	0.70	1	04/11/05	04/11/05	KWG0505901	
1,2-Dichloropropane	ND	U	13	1.8	1	04/11/05	04/11/05	KWG0505901	
Bromodichloromethane	ND	U	13	1.4	1	04/11/05	04/11/05	KWG0505901	
Methylcyclohexane	ND	U	13	1.8	1	04/11/05	04/11/05	KWG0505901	
2-Hexanone	ND	U	50	16	1	04/11/05	04/11/05	KWG0505901	
cis-1,3-Dichloropropene	ND	U	13	1.9	1	04/11/05	04/11/05	KWG0505901	
Toluene	ND	U	13	2.1	1	04/11/05	04/11/05	KWG0505901	
trans-1,3-Dichloropropene	ND	U	13	1.5	1	04/11/05	04/11/05	KWG0505901	
1,1,2-Trichloroethane	ND	U	13	1.8	1	04/11/05	04/11/05	KWG0505901	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502505
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R3-SB04-2-3
 Lab Code: K2502505-002
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	50	14	1	04/11/05	04/11/05	KWG0505901	
Tetrachloroethene (PCE)	ND	U	13	0.77	1	04/11/05	04/11/05	KWG0505901	
Dibromochloromethane	ND	U	13	1.5	1	04/11/05	04/11/05	KWG0505901	
1,2-Dibromoethane (EDB)	ND	U	50	2.0	1	04/11/05	04/11/05	KWG0505901	
Chlorobenzene	ND	U	13	1.8	1	04/11/05	04/11/05	KWG0505901	
Ethylbenzene	ND	U	13	1.5	1	04/11/05	04/11/05	KWG0505901	
m,p-Xylenes	ND	U	13	3.8	1	04/11/05	04/11/05	KWG0505901	
o-Xylene	ND	U	13	1.8	1	04/11/05	04/11/05	KWG0505901	
Styrene	ND	U	13	1.9	1	04/11/05	04/11/05	KWG0505901	
Bromoform	ND	U	13	2.0	1	04/11/05	04/11/05	KWG0505901	
Isopropylbenzene	ND	U	50	1.7	1	04/11/05	04/11/05	KWG0505901	
1,1,2,2-Tetrachloroethane	ND	U	13	1.9	1	04/11/05	04/11/05	KWG0505901	
1,3-Dichlorobenzene	ND	U	13	1.8	1	04/11/05	04/11/05	KWG0505901	
1,4-Dichlorobenzene	ND	U	13	2.1	1	04/11/05	04/11/05	KWG0505901	
1,2-Dichlorobenzene	ND	U	13	1.7	1	04/11/05	04/11/05	KWG0505901	
1,2-Dibromo-3-chloropropane	ND	U	50	2.2	1	04/11/05	04/11/05	KWG0505901	
1,2,4-Trichlorobenzene	ND	U	50	2.0	1	04/11/05	04/11/05	KWG0505901	
Naphthalene	ND	U	50	2.2	1	04/11/05	04/11/05	KWG0505901	
Bromochloromethane	ND	U	13	2.5	1	04/11/05	04/11/05	KWG0505901	
1,2,3-Trichlorobenzene	ND	U	50	2.3	1	04/11/05	04/11/05	KWG0505901	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	108	70-119	04/11/05	Acceptable
Toluene-d8	108	72-121	04/11/05	Acceptable
4-Bromofluorobenzene	110	66-122	04/11/05	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502505
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R3-SB01-0-0.5
 Lab Code: K2502505-003
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	8.9	1.3	1	04/11/05	04/12/05	KWG0505901	
Chloromethane	ND	U	8.9	1.8	1	04/11/05	04/12/05	KWG0505901	
Vinyl Chloride	ND	U	8.9	1.1	1	04/11/05	04/12/05	KWG0505901	
Bromomethane	ND	U	8.9	1.5	1	04/11/05	04/12/05	KWG0505901	
Chloroethane	ND	U	8.9	1.4	1	04/11/05	04/12/05	KWG0505901	
Trichlorofluoromethane	ND	U	8.9	1.3	1	04/11/05	04/12/05	KWG0505901	
Trichlorotrifluoroethane	ND	U	8.9	1.4	1	04/11/05	04/12/05	KWG0505901	
Acetone	45	U	36	18	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethene	ND	U	8.9	1.3	1	04/11/05	04/12/05	KWG0505901	
Methyl Acetate	ND	U	8.9	1.4	1	04/11/05	04/12/05	KWG0505901	
Carbon Disulfide	ND	U	8.9	2.7	1	04/11/05	04/12/05	KWG0505901	
Diisopropyl Ether	ND	U	18	0.61	1	04/11/05	04/12/05	KWG0505901	
Methylene Chloride	ND	U	18	4.5	1	04/11/05	04/12/05	KWG0505901	
Methyl tert-Butyl Ether	ND	U	8.9	1.2	1	04/11/05	04/12/05	KWG0505901	
trans-1,2-Dichloroethene	ND	U	8.9	1.3	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethane	ND	U	8.9	1.4	1	04/11/05	04/12/05	KWG0505901	
2-Butanone (MEK)	ND	U	36	22	1	04/11/05	04/12/05	KWG0505901	
cis-1,2-Dichloroethene	ND	U	8.9	1.5	1	04/11/05	04/12/05	KWG0505901	
Chloroform	ND	U	8.9	1.1	1	04/11/05	04/12/05	KWG0505901	
1,1,1-Trichloroethane (TCA)	ND	U	8.9	1.1	1	04/11/05	04/12/05	KWG0505901	
Cyclohexane	ND	U	8.9	1.2	1	04/11/05	04/12/05	KWG0505901	
Carbon Tetrachloride	ND	U	8.9	1.1	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloroethane (EDC)	ND	U	8.9	1.2	1	04/11/05	04/12/05	KWG0505901	
Benzene	ND	U	8.9	1.5	1	04/11/05	04/12/05	KWG0505901	
Trichloroethene (TCE)	ND	U	8.9	0.50	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloropropane	ND	U	8.9	1.3	1	04/11/05	04/12/05	KWG0505901	
Bromodichloromethane	ND	U	8.9	0.94	1	04/11/05	04/12/05	KWG0505901	
Methylcyclohexane	ND	U	8.9	1.3	1	04/11/05	04/12/05	KWG0505901	
2-Hexanone	ND	U	36	11	1	04/11/05	04/12/05	KWG0505901	
cis-1,3-Dichloropropene	ND	U	8.9	1.4	1	04/11/05	04/12/05	KWG0505901	
Toluene	ND	U	8.9	1.5	1	04/11/05	04/12/05	KWG0505901	
trans-1,3-Dichloropropene	ND	U	8.9	1.1	1	04/11/05	04/12/05	KWG0505901	
1,1,2-Trichloroethane	ND	U	8.9	1.3	1	04/11/05	04/12/05	KWG0505901	

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502505
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R3-SB01-0-0.5
 Lab Code: K2502505-003
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	36	9.8	1	04/11/05	04/12/05	KWG0505901	
Tetrachloroethene (PCE)	ND	U	8.9	0.55	1	04/11/05	04/12/05	KWG0505901	
Dibromochloromethane	ND	U	8.9	1.1	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromoethane (EDB)	ND	U	36	1.5	1	04/11/05	04/12/05	KWG0505901	
Chlorobenzene	ND	U	8.9	1.3	1	04/11/05	04/12/05	KWG0505901	
Ethylbenzene	ND	U	8.9	1.1	1	04/11/05	04/12/05	KWG0505901	
m,p-Xylenes	ND	U	8.9	2.7	1	04/11/05	04/12/05	KWG0505901	
o-Xylene	ND	U	8.9	1.3	1	04/11/05	04/12/05	KWG0505901	
Styrene	ND	U	8.9	1.3	1	04/11/05	04/12/05	KWG0505901	
Bromoform	ND	U	8.9	1.4	1	04/11/05	04/12/05	KWG0505901	
Isopropylbenzene	ND	U	36	1.3	1	04/11/05	04/12/05	KWG0505901	
1,1,2,2-Tetrachloroethane	ND	U	8.9	1.4	1	04/11/05	04/12/05	KWG0505901	
1,3-Dichlorobenzene	ND	U	8.9	1.3	1	04/11/05	04/12/05	KWG0505901	
1,4-Dichlorobenzene	ND	U	8.9	1.5	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichlorobenzene	ND	U	8.9	1.2	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromo-3-chloropropane	ND	U	36	1.6	1	04/11/05	04/12/05	KWG0505901	
1,2,4-Trichlorobenzene	ND	U	36	1.4	1	04/11/05	04/12/05	KWG0505901	
Naphthalene	ND	U	36	1.6	1	04/11/05	04/12/05	KWG0505901	
Bromochloromethane	ND	U	8.9	1.8	1	04/11/05	04/12/05	KWG0505901	
1,2,3-Trichlorobenzene	ND	U	36	1.6	1	04/11/05	04/12/05	KWG0505901	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	70-119	04/12/05	Acceptable
Toluene-d8	106	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	111	66-122	04/12/05	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502505
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R3-SB01-4-5
 Lab Code: K2502505-004
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	4.7	0.80	1	04/11/05	04/12/05	KWG0505901	
Chloromethane	ND	U	4.7	1.2	1	04/11/05	04/12/05	KWG0505901	
Vinyl Chloride	ND	U	4.7	0.71	1	04/11/05	04/12/05	KWG0505901	
Bromomethane	ND	U	4.7	0.92	1	04/11/05	04/12/05	KWG0505901	UJ
Chloroethane	ND	U	4.7	0.90	1	04/11/05	04/12/05	KWG0505901	
Trichlorofluoromethane	ND	U	4.7	0.84	1	04/11/05	04/12/05	KWG0505901	
Trichlorotrifluoroethane	ND	U	4.7	0.85	1	04/11/05	04/12/05	KWG0505901	
Acetone	ND	U	19	12	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethene	ND	U	4.7	0.82	1	04/11/05	04/12/05	KWG0505901	
Methyl Acetate	ND	U	4.7	0.85	1	04/11/05	04/12/05	KWG0505901	
Carbon Disulfide	ND	U	4.7	1.8	1	04/11/05	04/12/05	KWG0505901	
Diisopropyl Ether	ND	U	9.4	0.39	1	04/11/05	04/12/05	KWG0505901	
Methylene Chloride	ND	U	9.4	2.9	1	04/11/05	04/12/05	KWG0505901	
Methyl tert-Butyl Ether	ND	U	4.7	0.75	1	04/11/05	04/12/05	KWG0505901	
trans-1,2-Dichloroethene	ND	U	4.7	0.84	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethane	ND	U	4.7	0.90	1	04/11/05	04/12/05	KWG0505901	
2-Butanone (MEK)	ND	U	19	14	1	04/11/05	04/12/05	KWG0505901	
cis-1,2-Dichloroethene	ND	U	4.7	0.95	1	04/11/05	04/12/05	KWG0505901	
Chloroform	ND	U	4.7	0.66	1	04/11/05	04/12/05	KWG0505901	
1,1,1-Trichloroethane (TCA)	ND	U	4.7	0.66	1	04/11/05	04/12/05	KWG0505901	
Cyclohexane	ND	U	4.7	0.77	1	04/11/05	04/12/05	KWG0505901	UJ
Carbon Tetrachloride	ND	U	4.7	0.69	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloroethane (EDC)	ND	U	4.7	0.77	1	04/11/05	04/12/05	KWG0505901	
Benzene	ND	U	4.7	0.91	1	04/11/05	04/12/05	KWG0505901	
Trichloroethene (TCE)	ND	U	4.7	0.32	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloropropane	ND	U	4.7	0.83	1	04/11/05	04/12/05	KWG0505901	
Bromodichloromethane	ND	U	4.7	0.61	1	04/11/05	04/12/05	KWG0505901	
Methylcyclohexane	ND	U	4.7	0.82	1	04/11/05	04/12/05	KWG0505901	UJ
2-Hexanone	ND	U	19	7.0	1	04/11/05	04/12/05	KWG0505901	
cis-1,3-Dichloropropene	ND	U	4.7	0.87	1	04/11/05	04/12/05	KWG0505901	
Toluene	ND	U	4.7	0.96	1	04/11/05	04/12/05	KWG0505901	
trans-1,3-Dichloropropene	ND	U	4.7	0.69	1	04/11/05	04/12/05	KWG0505901	
1,1,2-Trichloroethane	ND	U	4.7	0.79	1	04/11/05	04/12/05	KWG0505901	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502505
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R3-SB01-4-5
 Lab Code: K2502505-004
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	19	6.3	1	04/11/05	04/12/05	KWG0505901	
Tetrachloroethene (PCE)	ND	U	4.7	0.36	1	04/11/05	04/12/05	KWG0505901	
Dibromochloromethane	ND	U	4.7	0.69	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromoethane (EDB)	ND	U	19	0.91	1	04/11/05	04/12/05	KWG0505901	
Chlorobenzene	ND	U	4.7	0.80	1	04/11/05	04/12/05	KWG0505901	
Ethylbenzene	ND	U	4.7	0.66	1	04/11/05	04/12/05	KWG0505901	
m,p-Xylenes	ND	U	4.7	1.8	1	04/11/05	04/12/05	KWG0505901	
o-Xylene	ND	U	4.7	0.79	1	04/11/05	04/12/05	KWG0505901	
Styrene	ND	U	4.7	0.84	1	04/11/05	04/12/05	KWG0505901	
Bromoform	ND	U	4.7	0.88	1	04/11/05	04/12/05	KWG0505901	
Isopropylbenzene	ND	U	19	0.78	1	04/11/05	04/12/05	KWG0505901	
1,1,2,2-Tetrachloroethane	ND	U	4.7	0.85	1	04/11/05	04/12/05	KWG0505901	
1,3-Dichlorobenzene	ND	U	4.7	0.82	1	04/11/05	04/12/05	KWG0505901	
1,4-Dichlorobenzene	ND	U	4.7	0.94	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichlorobenzene	ND	U	4.7	0.75	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromo-3-chloropropane	ND	U	19	0.98	1	04/11/05	04/12/05	KWG0505901	
1,2,4-Trichlorobenzene	ND	U	19	0.88	1	04/11/05	04/12/05	KWG0505901	
Naphthalene	ND	U	19	1.1	1	04/11/05	04/12/05	KWG0505901	
Bromochloromethane	ND	U	4.7	1.2	1	04/11/05	04/12/05	KWG0505901	
1,2,3-Trichlorobenzene	ND	U	19	1.1	1	04/11/05	04/12/05	KWG0505901	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	105	70-119	04/12/05	Acceptable
Toluene-d8	109	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	105	66-122	04/12/05	Acceptable

Comments:

9/6/19/05

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502505
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R3-SB02-0-0.5
 Lab Code: K2502505-005
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	4.8	0.80	1	04/11/05	04/12/05	KWG0505901	
Chloromethane	ND	U	4.8	1.2	1	04/11/05	04/12/05	KWG0505901	
Vinyl Chloride	ND	U	4.8	0.71	1	04/11/05	04/12/05	KWG0505901	
Bromomethane	ND	U	4.8	0.91	1	04/11/05	04/12/05	KWG0505901	
Chloroethane	ND	U	4.8	0.89	1	04/11/05	04/12/05	KWG0505901	
Trichlorofluoromethane	ND	U	4.8	0.83	1	04/11/05	04/12/05	KWG0505901	
Trichlorotrifluoroethane	ND	U	4.8	0.84	1	04/11/05	04/12/05	KWG0505901	
Acetone	ND	U	19	12	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethene	ND	U	4.8	0.81	1	04/11/05	04/12/05	KWG0505901	
Methyl Acetate	ND	U	4.8	0.84	1	04/11/05	04/12/05	KWG0505901	
Carbon Disulfide	ND	U	4.8	1.8	1	04/11/05	04/12/05	KWG0505901	
Diisopropyl Ether	ND	U	9.5	0.39	1	04/11/05	04/12/05	KWG0505901	
Methylene Chloride	ND	U	9.5	2.9	1	04/11/05	04/12/05	KWG0505901	
Methyl tert-Butyl Ether	ND	U	4.8	0.74	1	04/11/05	04/12/05	KWG0505901	
trans-1,2-Dichloroethene	ND	U	4.8	0.83	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethane	ND	U	4.8	0.89	1	04/11/05	04/12/05	KWG0505901	
2-Butanone (MEK)	ND	U	19	14	1	04/11/05	04/12/05	KWG0505901	
cis-1,2-Dichloroethene	ND	U	4.8	0.95	1	04/11/05	04/12/05	KWG0505901	
Chloroform	ND	U	4.8	0.65	1	04/11/05	04/12/05	KWG0505901	
1,1,1-Trichloroethane (TCA)	ND	U	4.8	0.65	1	04/11/05	04/12/05	KWG0505901	
Cyclohexane	ND	U	4.8	0.77	1	04/11/05	04/12/05	KWG0505901	
Carbon Tetrachloride	ND	U	4.8	0.69	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloroethane (EDC)	ND	U	4.8	0.77	1	04/11/05	04/12/05	KWG0505901	
Benzene	ND	U	4.8	0.90	1	04/11/05	04/12/05	KWG0505901	
Trichloroethene (TCE)	ND	U	4.8	0.32	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloropropane	ND	U	4.8	0.82	1	04/11/05	04/12/05	KWG0505901	
Bromodichloromethane	ND	U	4.8	0.61	1	04/11/05	04/12/05	KWG0505901	
Methylcyclohexane	ND	U	4.8	0.81	1	04/11/05	04/12/05	KWG0505901	
2-Hexanone	ND	U	19	7.0	1	04/11/05	04/12/05	KWG0505901	
cis-1,3-Dichloropropene	ND	U	4.8	0.87	1	04/11/05	04/12/05	KWG0505901	
Toluene	ND	U	4.8	0.96	1	04/11/05	04/12/05	KWG0505901	
trans-1,3-Dichloropropene	ND	U	4.8	0.69	1	04/11/05	04/12/05	KWG0505901	
1,1,2-Trichloroethane	ND	U	4.8	0.79	1	04/11/05	04/12/05	KWG0505901	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502505
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R3-SB02-0-0.5
 Lab Code: K2502505-005
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	19	6.3	1	04/11/05	04/12/05	KWG0505901	
Tetrachloroethene (PCE)	ND	U	4.8	0.36	1	04/11/05	04/12/05	KWG0505901	
Dibromochloromethane	ND	U	4.8	0.69	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromoethane (EDB)	ND	U	19	0.90	1	04/11/05	04/12/05	KWG0505901	
Chlorobenzene	ND	U	4.8	0.80	1	04/11/05	04/12/05	KWG0505901	
Ethylbenzene	ND	U	4.8	0.65	1	04/11/05	04/12/05	KWG0505901	
m,p-Xylenes	ND	U	4.8	1.8	1	04/11/05	04/12/05	KWG0505901	
o-Xylene	ND	U	4.8	0.79	1	04/11/05	04/12/05	KWG0505901	
Styrene	ND	U	4.8	0.83	1	04/11/05	04/12/05	KWG0505901	
Bromoform	ND	U	4.8	0.88	1	04/11/05	04/12/05	KWG0505901	
Isopropylbenzene	ND	U	19	0.78	1	04/11/05	04/12/05	KWG0505901	
1,1,2,2-Tetrachloroethane	ND	U	4.8	0.84	1	04/11/05	04/12/05	KWG0505901	
1,3-Dichlorobenzene	ND	U	4.8	0.81	1	04/11/05	04/12/05	KWG0505901	
1,4-Dichlorobenzene	ND	U	4.8	0.94	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichlorobenzene	ND	U	4.8	0.74	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromo-3-chloropropane	ND	U	19	0.97	1	04/11/05	04/12/05	KWG0505901	
1,2,4-Trichlorobenzene	ND	U	19	0.88	1	04/11/05	04/12/05	KWG0505901	
Naphthalene	ND	U	19	1.1	1	04/11/05	04/12/05	KWG0505901	
Bromochloromethane	ND	U	4.8	1.2	1	04/11/05	04/12/05	KWG0505901	
1,2,3-Trichlorobenzene	ND	U	19	1.1	1	04/11/05	04/12/05	KWG0505901	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	70-119	04/12/05	Acceptable
Toluene-d8	108	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	105	66-122	04/12/05	Acceptable

Comments:

6/19/05

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502505
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R3-SB03-0-0.5
 Lab Code: K2502505-006
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND U	4.6	0.84	1	04/11/05	04/12/05	KWG0505901	
Chloromethane	ND U	4.6	1.2	1	04/11/05	04/12/05	KWG0505901	
Vinyl Chloride	ND U	4.6	0.74	1	04/11/05	04/12/05	KWG0505901	
Bromomethane	ND U <i>UJ</i>	4.6	0.96	1	04/11/05	04/12/05	KWG0505901	
Chloroethane	ND U	4.6	0.94	1	04/11/05	04/12/05	KWG0505901	
Trichlorofluoromethane	ND U	4.6	0.88	1	04/11/05	04/12/05	KWG0505901	
Trichlorotrifluoroethane	ND U	4.6	0.89	1	04/11/05	04/12/05	KWG0505901	
Acetone	ND U	19	12	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethene	ND U	4.6	0.85	1	04/11/05	04/12/05	KWG0505901	
Methyl Acetate	ND U	4.6	0.89	1	04/11/05	04/12/05	KWG0505901	
Carbon Disulfide	ND U	4.6	1.8	1	04/11/05	04/12/05	KWG0505901	
Diisopropyl Ether	ND U	9.2	0.41	1	04/11/05	04/12/05	KWG0505901	
Methylene Chloride	ND U	9.2	3.0	1	04/11/05	04/12/05	KWG0505901	
Methyl tert-Butyl Ether	ND U	4.6	0.78	1	04/11/05	04/12/05	KWG0505901	
trans-1,2-Dichloroethene	ND U	4.6	0.88	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethane	ND U	4.6	0.94	1	04/11/05	04/12/05	KWG0505901	
2-Butanone (MEK)	ND U	19	15	1	04/11/05	04/12/05	KWG0505901	
cis-1,2-Dichloroethene	ND U	4.6	1.0	1	04/11/05	04/12/05	KWG0505901	
Chloroform	ND U	4.6	0.69	1	04/11/05	04/12/05	KWG0505901	
1,1,1-Trichloroethane (TCA)	ND U	4.6	0.69	1	04/11/05	04/12/05	KWG0505901	
Cyclohexane	ND U <i>UJ</i>	4.6	0.80	1	04/11/05	04/12/05	KWG0505901	
Carbon Tetrachloride	ND U	4.6	0.72	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloroethane (EDC)	ND U	4.6	0.80	1	04/11/05	04/12/05	KWG0505901	
Benzene	ND U	4.6	0.95	1	04/11/05	04/12/05	KWG0505901	
Trichloroethene (TCE)	ND U	4.6	0.34	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloropropane	ND U	4.6	0.86	1	04/11/05	04/12/05	KWG0505901	
Bromodichloromethane	ND U	4.6	0.64	1	04/11/05	04/12/05	KWG0505901	
Methylcyclohexane	ND U <i>UJ</i>	4.6	0.85	1	04/11/05	04/12/05	KWG0505901	
2-Hexanone	ND U	19	7.3	1	04/11/05	04/12/05	KWG0505901	
cis-1,3-Dichloropropene	ND U	4.6	0.91	1	04/11/05	04/12/05	KWG0505901	
Toluene	ND U	4.6	1.1	1	04/11/05	04/12/05	KWG0505901	
trans-1,3-Dichloropropene	ND U	4.6	0.72	1	04/11/05	04/12/05	KWG0505901	
1,1,2-Trichloroethane	ND U	4.6	0.83	1	04/11/05	04/12/05	KWG0505901	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502505
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R3-SB03-0-0.5
 Lab Code: K2502505-006
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND U	19	6.6	1	04/11/05	04/12/05	KWG0505901	
Tetrachloroethene (PCE)	ND U	4.6	0.37	1	04/11/05	04/12/05	KWG0505901	
Dibromochloromethane	ND U	4.6	0.72	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromoethane (EDB)	ND U	19	0.95	1	04/11/05	04/12/05	KWG0505901	
Chlorobenzene	ND U	4.6	0.84	1	04/11/05	04/12/05	KWG0505901	
Ethylbenzene	ND U	4.6	0.69	1	04/11/05	04/12/05	KWG0505901	
m,p-Xylenes	ND U	4.6	1.8	1	04/11/05	04/12/05	KWG0505901	
o-Xylene	ND U	4.6	0.83	1	04/11/05	04/12/05	KWG0505901	
Styrene	ND U	4.6	0.88	1	04/11/05	04/12/05	KWG0505901	
Bromoform	ND U	4.6	0.92	1	04/11/05	04/12/05	KWG0505901	
Isopropylbenzene	ND U	19	0.82	1	04/11/05	04/12/05	KWG0505901	
1,1,2,2-Tetrachloroethane	ND U	4.6	0.89	1	04/11/05	04/12/05	KWG0505901	
1,3-Dichlorobenzene	ND U	4.6	0.85	1	04/11/05	04/12/05	KWG0505901	
1,4-Dichlorobenzene	ND U	4.6	0.98	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichlorobenzene	ND U	4.6	0.78	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromo-3-chloropropane	ND U	19	1.1	1	04/11/05	04/12/05	KWG0505901	
1,2,4-Trichlorobenzene	ND U	19	0.92	1	04/11/05	04/12/05	KWG0505901	
Naphthalene	ND U	19	1.1	1	04/11/05	04/12/05	KWG0505901	
Bromochloromethane	ND U	4.6	1.2	1	04/11/05	04/12/05	KWG0505901	
1,2,3-Trichlorobenzene	ND U	19	1.1	1	04/11/05	04/12/05	KWG0505901	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	70-119	04/12/05	Acceptable
Toluene-d8	108	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	104	66-122	04/12/05	Acceptable

Comments: _____

6/19/05

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502505
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R4-SB03-0-0.5
 Lab Code: K2502505-007
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	4.8	0.76	1	04/11/05	04/12/05	KWG0505901	
Chloromethane	ND	U	4.8	1.1	1	04/11/05	04/12/05	KWG0505901	
Vinyl Chloride	ND	U	4.8	0.67	1	04/11/05	04/12/05	KWG0505901	
Bromomethane	ND	U	4.8	0.87	1	04/11/05	04/12/05	KWG0505901	
Chloroethane	ND	U	4.8	0.85	1	04/11/05	04/12/05	KWG0505901	
Trichlorofluoromethane	ND	U	4.8	0.79	1	04/11/05	04/12/05	KWG0505901	
Trichlorotrifluoroethane	ND	U	4.8	0.80	1	04/11/05	04/12/05	KWG0505901	
Acetone	ND	U	19	11	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethene	ND	U	4.8	0.77	1	04/11/05	04/12/05	KWG0505901	
Methyl Acetate	ND	U	4.8	0.80	1	04/11/05	04/12/05	KWG0505901	
Carbon Disulfide	ND	U	4.8	1.7	1	04/11/05	04/12/05	KWG0505901	
Diisopropyl Ether	ND	U	9.5	0.37	1	04/11/05	04/12/05	KWG0505901	
Methylene Chloride	ND	U	9.5	2.7	1	04/11/05	04/12/05	KWG0505901	
Methyl tert-Butyl Ether	ND	U	4.8	0.71	1	04/11/05	04/12/05	KWG0505901	
trans-1,2-Dichloroethene	ND	U	4.8	0.79	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethane	ND	U	4.8	0.85	1	04/11/05	04/12/05	KWG0505901	
2-Butanone (MEK)	ND	U	19	13	1	04/11/05	04/12/05	KWG0505901	
cis-1,2-Dichloroethene	ND	U	4.8	0.90	1	04/11/05	04/12/05	KWG0505901	
Chloroform	ND	U	4.8	0.62	1	04/11/05	04/12/05	KWG0505901	
1,1,1-Trichloroethane (TCA)	ND	U	4.8	0.62	1	04/11/05	04/12/05	KWG0505901	
Cyclohexane	ND	U	4.8	0.73	1	04/11/05	04/12/05	KWG0505901	
Carbon Tetrachloride	ND	U	4.8	0.65	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloroethane (EDC)	ND	U	4.8	0.73	1	04/11/05	04/12/05	KWG0505901	
Benzene	ND	U	4.8	0.86	1	04/11/05	04/12/05	KWG0505901	
Trichloroethene (TCE)	ND	U	4.8	0.31	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloropropane	ND	U	4.8	0.78	1	04/11/05	04/12/05	KWG0505901	
Bromodichloromethane	ND	U	4.8	0.58	1	04/11/05	04/12/05	KWG0505901	
Methylcyclohexane	ND	U	4.8	0.77	1	04/11/05	04/12/05	KWG0505901	
2-Hexanone	ND	U	19	6.6	1	04/11/05	04/12/05	KWG0505901	
cis-1,3-Dichloropropene	ND	U	4.8	0.83	1	04/11/05	04/12/05	KWG0505901	
Toluene	ND	U	4.8	0.91	1	04/11/05	04/12/05	KWG0505901	
trans-1,3-Dichloropropene	ND	U	4.8	0.65	1	04/11/05	04/12/05	KWG0505901	
1,1,2-Trichloroethane	ND	U	4.8	0.75	1	04/11/05	04/12/05	KWG0505901	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502505
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R4-SB03-0-0.5
 Lab Code: K2502505-007
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	19	6.0	1	04/11/05	04/12/05	KWG0505901	
Tetrachloroethene (PCE)	ND	U	4.8	0.34	1	04/11/05	04/12/05	KWG0505901	
Dibromochloromethane	ND	U	4.8	0.65	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromoethane (EDB)	ND	U	19	0.86	1	04/11/05	04/12/05	KWG0505901	
Chlorobenzene	ND	U	4.8	0.76	1	04/11/05	04/12/05	KWG0505901	
Ethylbenzene	ND	U	4.8	0.62	1	04/11/05	04/12/05	KWG0505901	
m,p-Xylenes	ND	U	4.8	1.7	1	04/11/05	04/12/05	KWG0505901	
o-Xylene	ND	U	4.8	0.75	1	04/11/05	04/12/05	KWG0505901	
Styrene	ND	U	4.8	0.79	1	04/11/05	04/12/05	KWG0505901	
Bromoform	ND	U	4.8	0.84	1	04/11/05	04/12/05	KWG0505901	
Isopropylbenzene	ND	U	19	0.74	1	04/11/05	04/12/05	KWG0505901	
1,1,2,2-Tetrachloroethane	ND	U	4.8	0.80	1	04/11/05	04/12/05	KWG0505901	
1,3-Dichlorobenzene	ND	U	4.8	0.77	1	04/11/05	04/12/05	KWG0505901	
1,4-Dichlorobenzene	ND	U	4.8	0.89	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichlorobenzene	ND	U	4.8	0.71	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromo-3-chloropropane	ND	U	19	0.92	1	04/11/05	04/12/05	KWG0505901	
1,2,4-Trichlorobenzene	ND	U	19	0.84	1	04/11/05	04/12/05	KWG0505901	
Naphthalene	ND	U	19	0.97	1	04/11/05	04/12/05	KWG0505901	
Bromochloromethane	ND	U	4.8	1.1	1	04/11/05	04/12/05	KWG0505901	
1,2,3-Trichlorobenzene	ND	U	19	0.98	1	04/11/05	04/12/05	KWG0505901	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	106	70-119	04/12/05	Acceptable
Toluene-d8	108	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	103	66-122	04/12/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502505
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R4-SB03-3-4
 Lab Code: K2502505-008
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	9.0	1.3	1	04/11/05	04/12/05	KWG0505901	
Chloromethane	ND	U	9.0	1.8	1	04/11/05	04/12/05	KWG0505901	
Vinyl Chloride	ND	U	9.0	1.2	1	04/11/05	04/12/05	KWG0505901	
Bromomethane	ND	U	9.0	1.5	1	04/11/05	04/12/05	KWG0505901	UJ
Chloroethane	ND	U	9.0	1.5	1	04/11/05	04/12/05	KWG0505901	
Trichlorofluoromethane	ND	U	9.0	1.4	1	04/11/05	04/12/05	KWG0505901	
Trichlorotrifluoroethane	ND	U	9.0	1.4	1	04/11/05	04/12/05	KWG0505901	
Acetone	ND	U	36	18	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethene	ND	U	9.0	1.3	1	04/11/05	04/12/05	KWG0505901	
Methyl Acetate	ND	U	9.0	1.4	1	04/11/05	04/12/05	KWG0505901	
Carbon Disulfide	ND	U	9.0	2.7	1	04/11/05	04/12/05	KWG0505901	
Diisopropyl Ether	ND	U	18	0.62	1	04/11/05	04/12/05	KWG0505901	
Methylene Chloride	ND	U	18	4.5	1	04/11/05	04/12/05	KWG0505901	
Methyl tert-Butyl Ether	ND	U	9.0	1.2	1	04/11/05	04/12/05	KWG0505901	
trans-1,2-Dichloroethene	ND	U	9.0	1.4	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethane	ND	U	9.0	1.5	1	04/11/05	04/12/05	KWG0505901	
2-Butanone (MEK)	ND	U	36	22	1	04/11/05	04/12/05	KWG0505901	
cis-1,2-Dichloroethene	ND	U	9.0	1.5	1	04/11/05	04/12/05	KWG0505901	
Chloroform	ND	U	9.0	1.1	1	04/11/05	04/12/05	KWG0505901	
1,1,1-Trichloroethane (TCA)	ND	U	9.0	1.1	1	04/11/05	04/12/05	KWG0505901	
Cyclohexane	ND	U	9.0	1.3	1	04/11/05	04/12/05	KWG0505901	UJ
Carbon Tetrachloride	ND	U	9.0	1.1	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloroethane (EDC)	ND	U	9.0	1.3	1	04/11/05	04/12/05	KWG0505901	
Benzene	ND	U	9.0	1.5	1	04/11/05	04/12/05	KWG0505901	
Trichloroethene (TCE)	ND	U	9.0	0.51	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloropropane	ND	U	9.0	1.3	1	04/11/05	04/12/05	KWG0505901	
Bromodichloromethane	ND	U	9.0	0.96	1	04/11/05	04/12/05	KWG0505901	
Methylcyclohexane	ND	U	9.0	1.3	1	04/11/05	04/12/05	KWG0505901	UJ
2-Hexanone	ND	U	36	11	1	04/11/05	04/12/05	KWG0505901	
cis-1,3-Dichloropropene	ND	U	9.0	1.4	1	04/11/05	04/12/05	KWG0505901	
Toluene	ND	U	9.0	1.6	1	04/11/05	04/12/05	KWG0505901	
trans-1,3-Dichloropropene	ND	U	9.0	1.1	1	04/11/05	04/12/05	KWG0505901	
1,1,2-Trichloroethane	ND	U	9.0	1.3	1	04/11/05	04/12/05	KWG0505901	

Comments: _____

g/g/19/05

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502505
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R4-SB03-3-4
 Lab Code: K2502505-008
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	36	9.9	1	04/11/05	04/12/05	KWG0505901	
Tetrachloroethene (PCE)	ND	U	9.0	0.56	1	04/11/05	04/12/05	KWG0505901	
Dibromochloromethane	ND	U	9.0	1.1	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromoethane (EDB)	ND	U	36	1.5	1	04/11/05	04/12/05	KWG0505901	
Chlorobenzene	ND	U	9.0	1.3	1	04/11/05	04/12/05	KWG0505901	
Ethylbenzene	ND	U	9.0	1.1	1	04/11/05	04/12/05	KWG0505901	
m,p-Xylenes	ND	U	9.0	2.7	1	04/11/05	04/12/05	KWG0505901	
o-Xylene	ND	U	9.0	1.3	1	04/11/05	04/12/05	KWG0505901	
Styrene	ND	U	9.0	1.4	1	04/11/05	04/12/05	KWG0505901	
Bromoform	ND	U	9.0	1.4	1	04/11/05	04/12/05	KWG0505901	
Isopropylbenzene	ND	U	36	1.3	1	04/11/05	04/12/05	KWG0505901	
1,1,2,2-Tetrachloroethane	ND	U	9.0	1.4	1	04/11/05	04/12/05	KWG0505901	
1,3-Dichlorobenzene	ND	U	9.0	1.3	1	04/11/05	04/12/05	KWG0505901	
1,4-Dichlorobenzene	ND	U	9.0	1.5	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichlorobenzene	ND	U	9.0	1.2	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromo-3-chloropropane	ND	U	36	1.6	1	04/11/05	04/12/05	KWG0505901	
1,2,4-Trichlorobenzene	ND	U	36	1.4	1	04/11/05	04/12/05	KWG0505901	
Naphthalene	ND	U	36	1.6	1	04/11/05	04/12/05	KWG0505901	
Bromochloromethane	ND	U	9.0	1.8	1	04/11/05	04/12/05	KWG0505901	
1,2,3-Trichlorobenzene	ND	U	36	1.7	1	04/11/05	04/12/05	KWG0505901	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	107	70-119	04/12/05	Acceptable
Toluene-d8	106	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	103	66-122	04/12/05	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502505
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R4-SB02-0-0.5
 Lab Code: K2502505-009
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	4.6	0.78	1	04/11/05	04/12/05	KWG0505901	
Chloromethane	ND	U	4.6	1.1	1	04/11/05	04/12/05	KWG0505901	
Vinyl Chloride	ND	U	4.6	0.69	1	04/11/05	04/12/05	KWG0505901	
Bromomethane	ND	U	4.6	0.89	1	04/11/05	04/12/05	KWG0505901	
Chloroethane	ND	U	4.6	0.87	1	04/11/05	04/12/05	KWG0505901	
Trichlorofluoromethane	ND	U	4.6	0.82	1	04/11/05	04/12/05	KWG0505901	
Trichlorotrifluoroethane	ND	U	4.6	0.83	1	04/11/05	04/12/05	KWG0505901	
Acetone	ND	U	19	12	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethene	ND	U	4.6	0.79	1	04/11/05	04/12/05	KWG0505901	
Methyl Acetate	ND	U	4.6	0.83	1	04/11/05	04/12/05	KWG0505901	
Carbon Disulfide	ND	U	4.6	1.7	1	04/11/05	04/12/05	KWG0505901	
Diisopropyl Ether	ND	U	9.1	0.38	1	04/11/05	04/12/05	KWG0505901	
Methylene Chloride	ND	U	9.1	2.8	1	04/11/05	04/12/05	KWG0505901	
Methyl tert-Butyl Ether	ND	U	4.6	0.73	1	04/11/05	04/12/05	KWG0505901	
trans-1,2-Dichloroethene	ND	U	4.6	0.82	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethane	ND	U	4.6	0.87	1	04/11/05	04/12/05	KWG0505901	
2-Butanone (MEK)	ND	U	19	14	1	04/11/05	04/12/05	KWG0505901	
cis-1,2-Dichloroethene	ND	U	4.6	0.93	1	04/11/05	04/12/05	KWG0505901	
Chloroform	ND	U	4.6	0.64	1	04/11/05	04/12/05	KWG0505901	
1,1,1-Trichloroethane (TCA)	ND	U	4.6	0.64	1	04/11/05	04/12/05	KWG0505901	
Cyclohexane	ND	U	4.6	0.75	1	04/11/05	04/12/05	KWG0505901	
Carbon Tetrachloride	ND	U	4.6	0.67	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloroethane (EDC)	ND	U	4.6	0.75	1	04/11/05	04/12/05	KWG0505901	
Benzene	ND	U	4.6	0.88	1	04/11/05	04/12/05	KWG0505901	
Trichloroethene (TCE)	ND	U	4.6	0.32	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloropropane	ND	U	4.6	0.80	1	04/11/05	04/12/05	KWG0505901	
Bromodichloromethane	ND	U	4.6	0.59	1	04/11/05	04/12/05	KWG0505901	
Methylcyclohexane	ND	U	4.6	0.79	1	04/11/05	04/12/05	KWG0505901	
2-Hexanone	ND	U	19	6.8	1	04/11/05	04/12/05	KWG0505901	
cis-1,3-Dichloropropene	ND	U	4.6	0.85	1	04/11/05	04/12/05	KWG0505901	
Toluene	ND	U	4.6	0.94	1	04/11/05	04/12/05	KWG0505901	
trans-1,3-Dichloropropene	ND	U	4.6	0.67	1	04/11/05	04/12/05	KWG0505901	
1,1,2-Trichloroethane	ND	U	4.6	0.77	1	04/11/05	04/12/05	KWG0505901	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502505
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R4-SB02-0-0.5
 Lab Code: K2502505-009
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	19	6.2	1	04/11/05	04/12/05	KWG0505901	
Tetrachloroethene (PCE)	ND	U	4.6	0.35	1	04/11/05	04/12/05	KWG0505901	
Dibromochloromethane	ND	U	4.6	0.67	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromoethane (EDB)	ND	U	19	0.88	1	04/11/05	04/12/05	KWG0505901	
Chlorobenzene	ND	U	4.6	0.78	1	04/11/05	04/12/05	KWG0505901	
Ethylbenzene	ND	U	4.6	0.64	1	04/11/05	04/12/05	KWG0505901	
m,p-Xylenes	ND	U	4.6	1.7	1	04/11/05	04/12/05	KWG0505901	
o-Xylene	ND	U	4.6	0.77	1	04/11/05	04/12/05	KWG0505901	
Styrene	ND	U	4.6	0.82	1	04/11/05	04/12/05	KWG0505901	
Bromoform	ND	U	4.6	0.86	1	04/11/05	04/12/05	KWG0505901	
Isopropylbenzene	ND	U	19	0.76	1	04/11/05	04/12/05	KWG0505901	
1,1,2,2-Tetrachloroethane	ND	U	4.6	0.83	1	04/11/05	04/12/05	KWG0505901	
1,3-Dichlorobenzene	ND	U	4.6	0.79	1	04/11/05	04/12/05	KWG0505901	
1,4-Dichlorobenzene	ND	U	4.6	0.92	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichlorobenzene	ND	U	4.6	0.73	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromo-3-chloropropane	ND	U	19	0.95	1	04/11/05	04/12/05	KWG0505901	
1,2,4-Trichlorobenzene	ND	U	19	0.86	1	04/11/05	04/12/05	KWG0505901	
Naphthalene	ND	U	19	0.99	1	04/11/05	04/12/05	KWG0505901	
Bromochloromethane	ND	U	4.6	1.1	1	04/11/05	04/12/05	KWG0505901	
1,2,3-Trichlorobenzene	ND	U	19	1.0	1	04/11/05	04/12/05	KWG0505901	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	108	70-119	04/12/05	Acceptable
Toluene-d8	108	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	111	66-122	04/12/05	Acceptable

Comments: _____

6/19/05

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
 Project: Novato Ballfields/G486063
 Sample Matrix: Soil

Service Request: K2502505
 Date Collected: 04/06/2005
 Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R4-SB01-0-0.5
 Lab Code: K2502505-010
 Extraction Method: EPA 5035
 Analysis Method: 8260B

Units: ug/Kg
 Basis: Dry
 Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	4.3	0.76	1	04/11/05	04/12/05	KWG0505901	
Chloromethane	ND	U	4.3	1.1	1	04/11/05	04/12/05	KWG0505901	
Vinyl Chloride	ND	U	4.3	0.68	1	04/11/05	04/12/05	KWG0505901	
Bromomethane	ND	U	4.3	0.87	1	04/11/05	04/12/05	KWG0505901	UJ
Chloroethane	ND	U	4.3	0.85	1	04/11/05	04/12/05	KWG0505901	
Trichlorofluoromethane	ND	U	4.3	0.79	1	04/11/05	04/12/05	KWG0505901	
Trichlorotrifluoroethane	ND	U	4.3	0.80	1	04/11/05	04/12/05	KWG0505901	
Acetone	ND	U	18	11	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethene	ND	U	4.3	0.77	1	04/11/05	04/12/05	KWG0505901	
Methyl Acetate	ND	U	4.3	0.80	1	04/11/05	04/12/05	KWG0505901	
Carbon Disulfide	ND	U	4.3	1.7	1	04/11/05	04/12/05	KWG0505901	
Diisopropyl Ether	ND	U	8.6	0.37	1	04/11/05	04/12/05	KWG0505901	
Methylene Chloride	ND	U	8.6	2.8	1	04/11/05	04/12/05	KWG0505901	
Methyl tert-Butyl Ether	ND	U	4.3	0.71	1	04/11/05	04/12/05	KWG0505901	
trans-1,2-Dichloroethene	ND	U	4.3	0.79	1	04/11/05	04/12/05	KWG0505901	
1,1-Dichloroethane	ND	U	4.3	0.85	1	04/11/05	04/12/05	KWG0505901	
2-Butanone (MEK)	ND	U	18	13	1	04/11/05	04/12/05	KWG0505901	
cis-1,2-Dichloroethene	ND	U	4.3	0.90	1	04/11/05	04/12/05	KWG0505901	
Chloroform	ND	U	4.3	0.62	1	04/11/05	04/12/05	KWG0505901	
1,1,1-Trichloroethane (TCA)	ND	U	4.3	0.62	1	04/11/05	04/12/05	KWG0505901	
Cyclohexane	ND	U	4.3	0.73	1	04/11/05	04/12/05	KWG0505901	UJ
Carbon Tetrachloride	ND	U	4.3	0.65	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloroethane (EDC)	ND	U	4.3	0.73	1	04/11/05	04/12/05	KWG0505901	
Benzene	ND	U	4.3	0.86	1	04/11/05	04/12/05	KWG0505901	
Trichloroethene (TCE)	ND	U	4.3	0.31	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichloropropane	ND	U	4.3	0.78	1	04/11/05	04/12/05	KWG0505901	
Bromodichloromethane	ND	U	4.3	0.58	1	04/11/05	04/12/05	KWG0505901	
Methylcyclohexane	ND	U	4.3	0.77	1	04/11/05	04/12/05	KWG0505901	UJ
2-Hexanone	ND	U	18	6.6	1	04/11/05	04/12/05	KWG0505901	
cis-1,3-Dichloropropene	ND	U	4.3	0.83	1	04/11/05	04/12/05	KWG0505901	
Toluene	ND	U	4.3	0.91	1	04/11/05	04/12/05	KWG0505901	
trans-1,3-Dichloropropene	ND	U	4.3	0.65	1	04/11/05	04/12/05	KWG0505901	
1,1,2-Trichloroethane	ND	U	4.3	0.75	1	04/11/05	04/12/05	KWG0505901	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Battelle Memorial Institute
Project: Novato Ballfields/G486063
Sample Matrix: Soil

Service Request: K2502505
Date Collected: 04/06/2005
Date Received: 04/07/2005

Volatile Organic Compounds

Sample Name: TO63-R4-SB01-0-0.5
Lab Code: K2502505-010
Extraction Method: EPA 5035
Analysis Method: 8260B

Units: ug/Kg
Basis: Dry
Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
4-Methyl-2-pentanone (MIBK)	ND	U	18	6.0	1	04/11/05	04/12/05	KWG0505901	
Tetrachloroethene (PCE)	ND	U	4.3	0.34	1	04/11/05	04/12/05	KWG0505901	
Dibromochloromethane	ND	U	4.3	0.65	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromoethane (EDB)	ND	U	18	0.86	1	04/11/05	04/12/05	KWG0505901	
Chlorobenzene	ND	U	4.3	0.76	1	04/11/05	04/12/05	KWG0505901	
Ethylbenzene	ND	U	4.3	0.62	1	04/11/05	04/12/05	KWG0505901	
m,p-Xylenes	ND	U	4.3	1.7	1	04/11/05	04/12/05	KWG0505901	
o-Xylene	ND	U	4.3	0.75	1	04/11/05	04/12/05	KWG0505901	
Styrene	ND	U	4.3	0.79	1	04/11/05	04/12/05	KWG0505901	
Bromoform	ND	U	4.3	0.84	1	04/11/05	04/12/05	KWG0505901	
Isopropylbenzene	ND	U	18	0.74	1	04/11/05	04/12/05	KWG0505901	
1,1,2,2-Tetrachloroethane	ND	U	4.3	0.80	1	04/11/05	04/12/05	KWG0505901	
1,3-Dichlorobenzene	ND	U	4.3	0.77	1	04/11/05	04/12/05	KWG0505901	
1,4-Dichlorobenzene	ND	U	4.3	0.89	1	04/11/05	04/12/05	KWG0505901	
1,2-Dichlorobenzene	ND	U	4.3	0.71	1	04/11/05	04/12/05	KWG0505901	
1,2-Dibromo-3-chloropropane	ND	U	18	0.92	1	04/11/05	04/12/05	KWG0505901	
1,2,4-Trichlorobenzene	ND	U	18	0.84	1	04/11/05	04/12/05	KWG0505901	
Naphthalene	ND	U	18	0.97	1	04/11/05	04/12/05	KWG0505901	
Bromochloromethane	ND	U	4.3	1.1	1	04/11/05	04/12/05	KWG0505901	
1,2,3-Trichlorobenzene	ND	U	18	0.98	1	04/11/05	04/12/05	KWG0505901	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	107	70-119	04/12/05	Acceptable
Toluene-d8	110	72-121	04/12/05	Acceptable
4-Bromofluorobenzene	112	66-122	04/12/05	Acceptable

Comments:

LDC #: 13575C1
 SDG #: K2502505
 Laboratory: Columbia Analytical Services

VALIDATION COMPLETENESS WORKSHEET

Level III/IV

Date: 6/13/05
 Page: 1 of 1
 Reviewer: [Signature]
 2nd Reviewer: [Signature]

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 4/6/05
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	W	%RSD ≤ 30/15. specs
IV.	Continuing calibration	A	%D ≤ 20. ICV ≤ 25/20
V.	Blanks	W	
VI.	Surrogate spikes	NA	client spiked
VII.	Matrix spike/Matrix spike duplicates	AN	client spiked
VIII.	Laboratory control samples	A	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	Not reviewed for Level III validation.
XII.	Compound quantitation/CRQLs	A	Not reviewed for Level III validation.
XIII.	Tentatively identified compounds (TICs)	N	Not reviewed for Level III validation.
XIV.	System performance	A	Not reviewed for Level III validation.
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

Note: A = Acceptable
 N = Not provided/applicable
 SW = See worksheet
 ND = No compounds detected
 R = Rinsate
 FB = Field blank
 D = Duplicate
 TB = Trip blank
 EB = Equipment blank

Validated Samples: ** Indicates sample underwent Level IV validation

1	TO63-R3-SB04-0-0.5	11	KW#0505901-3	21		31	
2	TO63-R3-SB04-2-3**	12		22		32	
3	TO63-R3-SB01-0-0.5	13		23		33	
4	TO63-R3-SB01-4-5	14		24		34	
5	TO63-R3-SB02-0-0.5	15		25		35	
6	TO63-R3-SB03-0-0.5**	16		26		36	
7	TO63-R4-SB03-0-0.5	17		27		37	
8	TO63-R4-SB03-3-4	18		28		38	
9	TO63-R4-SB02-0-0.5	19		29		39	
10	TO63-R4-SB01-0-0.5**	20		30		40	

LDC #: 13575C1
SDG #: K2502SDS

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: 9
2nd Reviewer: 4

Method: Volatiles (EPA SW 846 Method 8260B)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cooler temperature criteria was met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
II. GC/MS Instrument performance check				
Were the BFB performance results reviewed and found to be within the specified criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples analyzed within the 12 hour clock criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a curve fit used for evaluation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990 ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were all percent relative standard deviations (%RSD) $\leq 30\%$ and relative response factors (RRF) > 0.05 ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
IV. Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all percent differences (%D) $\leq 25\%$ and relative response factors (RRF) ≥ 0.05 ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
V. Blanks				
Was a method blank associated with every sample in this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
VI. Surrogate spikes				
Were all surrogate %R within QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Was a MS/MSD analyzed every 20 samples of each matrix?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

LDC #: 13575C1
SDG #: K2502805

VALIDATION FINDINGS CHECKLIST

Page: 2 of 2
Reviewer: 9
2nd Reviewer: h

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were the performance evaluation (PE) samples within the acceptance limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
X. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were retention times within + 30 seconds of the associated calibration standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
XI. Target compound identification				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were chromatogram peaks verified and accounted for?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
XII. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
XIII. Tentatively identified compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Were relative intensities of the major ions within $\pm 20\%$ between the sample and the reference spectra?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
XIV. System performance				
System performance was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
XV. Overall assessment of data				
Overall assessment of data was found to be acceptable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
XVI. Field duplicates				
Field duplicate pairs were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field duplicates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
XVII. Field blanks				
Field blanks were identified in this SDG.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Target compounds were detected in the field blanks.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC. 1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl chloride**	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform*	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene**	BB. 1,1,2,2-Tetrachloroethane*	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane*	CC. Toluene**	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene*	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL.
K. Chloroform**	EE. Ethylbenzene**	YY. n-Propylbenzene	SSS. o-Xylene	MMMM.
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNN.
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafluoroethane	OOOO.
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	PPPP.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	QQQQ.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane**	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	TTTT.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-Isopropyltoluene	AAA. Ethyl tert-butyl ether	UUUU.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBB. tert-Amyl methyl ether	VVVV.

* = System performance check compounds (SPCC) for RRF ; ** = Calibration check compounds (CCC) for %RSD.

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Were all %RSDs and RRFs within the validation criteria of ≤ 30 %RSD and ≥ 0.05 RRF?

INICAL.1SB

VALIDATION FINDINGS WORKSHEET Blanks

Page: 1 of 1
 Reviewer:
 2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

- ☒ Y ☒ N ☒ N/A Was a method blank associated with every sample in this SDG?
- ☒ Y ☒ N ☒ N/A Was a method blank analyzed at least once every 12 hours for each matrix and concentration?
- ☒ Y ☒ N ☒ N/A Was there contamination in the method blanks? If yes, please see the qualifications below.

Blank analysis date: 4/11/05

Conc. units: ug/l Associated Samples: MM

Compound	Blank ID	Sample Identification									
Methylene chloride	KW0505901-3										
Methylene chloride											
Acetone	10										
B	0.80										
CRQL											

Blank analysis date: _____
 Conc. units: _____

Associated Samples: _____

Compound	Blank ID	Sample Identification									
Methylene chloride											
Methylene chloride											
Acetone											
CRQL											

All results were qualified using the criteria stated below except those circled.

Note: Common contaminants such as Methylene chloride, Acetone, 2-Butanone, Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

LDC #: 13575C1
SDG #: 10502505

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Page: 1 of 1
Reviewer: Q
2nd Reviewer: R

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

$$RRF = (A_s/C_s)/(A_i/C_i)$$

average RRF = sum of the RRFs/number of standards
$$\%RSD = 100 * (S/X)$$

A_s = Area of compound,
 C_s = Concentration of compound,
 S = Standard deviation of the RRFs
 X = Mean of the RRFs

A_i = Area of associated internal standard
 C_i = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Reported	Recalculated	Reported	Recalculated	Reported	Recalculated
				RRF (50 std)	RRF (50 std)	Average RRF (initial)	Average RRF (initial)	%RSD	%RSD
1	10AL	4/11/05	Methylene chloride (1st internal standard)	0.312	0.312	0.327	0.327	13.4	13.4
			Trichloroethene (2nd internal standard)	0.489	0.489	0.451	0.451	8.4	8.4
			Toluene (3rd internal standard)	2.01	2.01	1.95	1.95	11.1	11.1
2			Methylene chloride (1st internal standard)						
			Trichloroethene (2nd internal standard)						
			Toluene (3rd internal standard)						
3			Methylene chloride (1st internal standard)						
			Trichloroethene (2nd internal standard)						
			Toluene (3rd internal standard)						
4			Methylene chloride (1st internal standard)						
			Trichloroethene (2nd internal standard)						
			Toluene (3rd internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 1357501
SDG #: K2502505

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: 9
2nd Reviewer: 2

METHOD: GC/MS VCA (EPA SW 846 Method 8260B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = $100 * (\text{ave. RRF} - \text{RRF}) / \text{ave. RRF}$
RRF = $(A_x / C_x) / (A_s / C_s)$
Where: ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
 A_x = Area of compound, A_s = Area of associated internal standard
 C_x = Concentration of compound, C_s = Concentration of internal standard

#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (Initial)	Reported		Recalculated	
					RRF (CC)	%D	RRF (CC)	%D
1	0411F022	4/11/05	Methylene chloride (1st internal standard)	0.327	0.291	11	0.291	11
			Trichlorethene (2nd internal standard)	0.451	0.487	8	0.487	8
			Toluene (3rd internal standard)	1.95	2.03	4	2.03	4
2			Methylene chloride (1st internal standard)					
			Trichlorethene (2nd internal standard)					
			Toluene (3rd internal standard)					
3			Methylene chloride (1st internal standard)					
			Trichlorethene (2nd internal standard)					
			Toluene (3rd internal standard)					
4			Methylene chloride (1st internal standard)					
			Trichlorethene (2nd internal standard)					
			Toluene (3rd internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 1357501
SDG #: K2502505

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer: 9
2nd reviewer: [Signature]

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: $SF/SS * 100$

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 2

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8	50	53.84	108	108	0
Bromofluorobenzene	✓	54.78	110	110	
1,2-Dichloroethane-d4					
Dibromofluoromethane	50	54.01	108	108	✓

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

Sample ID: _____

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample Results Verification

Page: 1 of 1
Reviewer: g
2nd Reviewer: g

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

Where: SSC = Spiked sample concentration
SA = Spike added

LCS = Laboratory control sample percent recovery

LCSD = Laboratory control sample duplicate percent recovery

LCS ID: ~~KW0505901-1~~ - 2

[illegible]

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 17575C
SDG #: K2802505

VALIDATION FINDINGS WORKSHEET

Sample Calculation Verification

Page: 1 of 1
Reviewer: a
2nd reviewer: u

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Y N N/A Were all reported results recalculated and verified for all level IV samples?

Y	N	N/A	Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

$$\text{Concentration} = \frac{(A_s)(I_s)(DF)}{(A_s)(RRF)(V_o)(\%S)}$$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

I_s = Amount of internal standard added in nanograms (ng)

RRF = Relative response factor of the calibration standard.

V_o = Volume or weight of sample pruged in milliliters (ml) or grams (g).

Df = Dilution factor.

%S = Percent solids, applicable to soils and solid matrices only.

Example:

Sample I.D. 2, F

$$\text{Conc.} = \frac{(179070)(50)(5)(1)}{(633875 + 0.0779(3.43)(0.59))} = 44.8 \text{ } \mu\text{g/g}$$

[illegible]